OCT 11 1926
WM. R. STANSBURY
CLERK

No. [redacted] 31

IN THE

Supreme Court of the United States

OCTOBER TERM, 1925

THE VILLAGE OF EUCLID and HARRY W. STEIN, Inspector of Buildings,

Appellants,

v.

THE AMBLER REALTY COMPANY,

Appellee.

Appeal from the District Court of the United States for the Northern District of Ohio, Eastern Division.

MOTION FOR LEAVE TO FILE BRIEF, AMICI CURIAE AND BRIEF ON BEHALF OF THE NATIONAL CONFERENCE ON CITY PLANNING, THE NATIONAL HOUSING ASSOCIATION AND THE MASSACHUSETTS FEDERATION OF TOWN PLANNING BOARDS, AMICI CURIAE.

ALFRED BETTMAN,

Counsel for The National Conference on City Planning, The Ohio State Conference on City Planning, The National Housing Association and The Massachusetts Federation of Town Planning Boards, Amici Curiae.

No. 665

IN THE

Supreme Court of the United States

OCTOBER TERM, 1925

THE VILLAGE OF EUCLID and HARRY W. STEIN, Inspector of Buildings,

Appellants,

v.

THE AMBLER REALTY COMPANY,

Appellee.

Appeal from the District Court of the United States for the Northern District of Ohio, Eastern Division.

MOTION FOR LEAVE TO FILE ATTACHED BRIEF, AMICI CURIAE.

Now come The National Conference on City Planning, The Ohio State Conference on City Planning, The National Housing Association and The Massachusetts Federation of Town Planning Boards by Alfred Bettman, their counsel, and move the Court for leave to file as *amici curiae* a brief herewith exhibited in the above entitled cause arising under the constitution and laws of the United States, and,

in support of this motion, beg to state that they are associations engaged in promoting city planning, including zoning; that they believe the power to zone to be essential to the health, convenience, safety, morals and welfare of the people living in American urban communities, and that the issues of this case, as set forth in the pleadings and in the briefs of the counsel of the parties thereto, include the question of the constitutionality of zoning and it is upon that question that they respectively ask leave to file said brief.

ALFRED BETTMAN,

Counsel for The National Conference on City Planning, The Ohio State Conference on City Planning, The National Housing Association and The Massachusetts Federation of Town Planning Boards, Amici Curiae.

No. 665

IN THE

Supreme Court of the United States

THE VILLAGE OF EUCLID and HARRY W. STEIN, Inspector of Building,

Appellants,

v.

THE AMBLER REALTY COMPANY,

Appellee.

Appeal from the District Court of the United States for the Northern District of Ohio, Eastern Division

---

BRIEF ON BEHALF OF THE NATIONAL CONFERENCE ON CITY PLANNING, THE OHIO STATE CONFERENCE ON CITY PLANNING, THE NATIONAL HOUSING ASSOCIATION AND THE MASSACHUSETTS FEDERATION OF TOWN PLANNING BOARDS, Amici Curiae.

ALFRED BETTMAN,
Counsel for The National Conference on City Planning, The Ohio State Conference on City Planning, The National Housing Association, The Massachusetts Federation of Town Planning Boards, Amici Curiae.

TABLE OF CONTENTS.

	PAGE
Purpose and Scope of This Brief	1
What is Zoning?	2
Remarkable Spread of Zoning in the United States	5
Validity of Zoning Has Been Upheld by Supreme Court of Ohio and Consequently Issue Restricted to Federal Constitutional Question	5
This Court Has Sustained the Validity of Zoning Regulations	6
Effect of Police Power Regulation on Value of Purely Private Property Can Not be Test of Constitutionality; for Such Test Begs the Constitutional Question	9
Zoning Not a Taking of Property—Question of Compensation Not Involved	11
State of the Authorities—Complete List of Cases on Constitutionality of Zoning	13
a. Favorable decisions of highest and appellate state courts	15
b. Favorable decisions of inferior courts	18
c. Adverse decisions of highest and appellate courts	20
d. Adverse decisions of inferior courts	21
Analogy of Zoning to Other Types of Property Regulation	23
Zoning is Not for Aesthetic Purposes. Charge of Aesthetic Motives Represents Confusion Between Considerations of Taste and Beauty and Consideration of Orderliness, Cleanliness, Quiet and Healthful Environment	28
General Principles of Constitutional Law and Police Power	30
Discussion of Relationship of Zoning to Public Health, Safety, Convenience, Morals and General Welfare	32
Expressions of Courts Upon the Relationship of Zoning to the Public Health, Safety and Other Public Benefits Within the Scope of the Police Power	46
Conclusion	62

APPENDIX.

PAGE

Containing Expressions of Leading Authorities on the Relationship of Zoning to Public Health, Safety, Convenience, Morals, Prosperity and General Welfare 63

PUBLIC HEALTH

Zoning and Health, by George C. Whipple, M. Am. Soc. C. E., Prof. of Sanitary Eng., Harvard University, Cambridge, Mass..... 63

Statement of Dr. William H. Peters, Health Commissioner of Cincinnati..... 77

Statement of Dr. David I. Wolfstein..... 79

Report of Committee on Public Health and Social Service of Cincinnati Academy of Medicine..... 82

Report of Public Health Federation of Cincinnati.... 86

Extracts from Statement of Dr. John Dill Robertson, Commissioner of Health of City of Chicago..... 91

Extracts from Report of New York City Commission on Building Districts and Restrictions on Effects of Congestion..... 92

Extracts from Statements of Dr. William A. Evans, Health Commissioner of Chicago..... 94

Extracts from Statement of Dr. M. A. Bliss..... 95

PUBLIC MORALS

Statement of Judge of Hamilton County, Ohio, Court of Domestic Relations..... 96

PUBLIC CONVENIENCE AND SAFETY

Extracts from Report of Committee on City Planning and Zoning of National Street and Highway Safety Conference, 1924, Called by Secretary Hoover 97

PAGE

Extracts from Report Adopted by the National Conference on Street and Highway Safety, 1924..... 98

Extracts from "Influence of Zoning on the Design of Transportation Services," by J. Rowland Bibbins, Engr. of Washington, D. C., Before American Society of Civil Engineers..... 100

PUBLIC CONVENIENCE

Extracts from "Some Aspects of the Automobile Industry," by Alvan Macauley, President of the Packard Motor Company..... 101

Extracts from "City Planning as a Permanent Solution of the Traffic Problem," by Morris Knowles, Consulting Engineer and Chairman of City Planning Commission, Pittsburgh, Pa..... 102

Extracts from "The City, its Past and its Future," by Dr. Raymond Unwin of the British Ministry of Health..... 104

Extracts from Memorandum on Zoning in Built-Up Areas," Prepared for London County Council by British Town Planning Institute..... 105

PUBLIC SAFETY

Statement of Edmund Dwight, Resident Mgr. The Employers' Liability Assurance Corp. of London, May 18, 1916, to New York City Commission on Building Districts and Restrictions..... 106

Statements of John Kenlon, Chief of Fire Dept., New York City, to New York Commission on Building Districts and Restrictions on Relation of Zoning to Fire-Fighting..... 107

Extracts from 1925 Fire Prevention Year Book, Issued by Baltimore Underwriters and National Agent 108

PUBLIC PROSPERITY AND WELFARE

PAGE

Extracts from "How Zoning Prevents Blighted Districts," by Edward M. Bassett, Member of Department of Commerce Advisory Committee on Zoning and City Planning..... 112

Leaflet on "City Zoning is Sound Business," by John Ihlder, Civic Department, U. S. Chamber of Commerce 113

Statement of Executive Secretary of Better Housing League of Cincinnati..... 118

Extracts from Statement of Raymond V. Ingersoll, Park Commissioner of New York..... 125

Extracts from Statement of Clarence H. Kelsey, President of the Title Guarantee and Trust Company of New York, to New York City Zoning Commission 126

Extracts from Article of George S. Edie, Vice-Pres. of Westchester Trust Company of Yonkers, N. Y., Entitled "What the Banker Thinks of Zoning," Showing the Relation of Zoning to Better Housing Conditions..... 127

Leaflet Entitled "Why Zone Our Town?" by John Ihlder, Mgr. of the Civic Development Department of the Chamber of Commerce of the United States 130

Extracts from "A Zoning Primer," Issued by the Advisory Committee on Zoning of the United States Department of Commerce, by Secretary Hoover.. 133

Passages from "Elements of Land Economics," by Richard T. Ely and Edward W. Morehouse..... 135

TABLE OF CASES.

(NOTE—A full list of decisions involving the issue of the constitutionality of zoning will be found on pages 15 to 22. The following citations are limited to those otherwise cited or quoted from in the text of the brief.)

PAGE

Bacon v. Walker, 204 U. S. 311 ..... 26, 54

Chicago, B. & Q. Ry. v. Drainage Commissioners, 200 U. S. 561 ..... 11, 59

Connor v. Stoklosa (Mass.), 250 Mass. 52, 145 N. E. R. 262 52

Hadacheck v. Sebastian, also called Hadacheck v. Los Angeles, 239 U. S. 394 ..... 7, 10, 13

Health Dept. v. Rector, 145 N. Y. 32, 43 13

Lincoln Trust Co. v. Williams Building Corp., 229 N. Y. 313 61

Quong Wo, Ex Parte, 161 Cal. 220 28

Miller v. Board of Pub. Works of Los Angeles, 42 Cal. App. 786, affirmed 234 Pac. 381 52

Noble State Bank v. Haskell, 219 U. S. 104 ..... 25, 60

Opinion of the Justices of the Supreme Court of Massachusetts, 234 Mass. 597 51

Pennsylvania Coal Co. v. Mahon, 260 U. S. 393 11

Pritz v. Messer, 112 O. S. 628, 149 N. E. R. 30, 35 ..... 5, 56

St. Louis Poster Co. v. City of St. Louis, 249 U. S. 269 29

State, ex rel., v. Harris, 158 La. —, 105 So. R. 33 4

State, ex rel. Carter, v. Harper, 182 Wis. 148, 196 N. W. Rep. 451 ..... 26, 48

PAGE

State, ex rel. Civello et al., v. New Orleans, 154 La. 271, 282 46

Welch v. Swasey, 193 Mass. 364, 214 U. S. 91..... 7, 13, 29, 60, 61

Wertheimer v. Schwab, 210 N. Y. Supp. 312..... 4

Wulfsohn v. Inspr. of Bldgs. of City of Mt. Vernon, 241 N. Y. 288, 150 N. E. R. 120..... 58

Youngstown, City of v. Kahn Bros., 112 O. S. 654, 148 N. E. R. 842..... 4

TEXTS CITED.

Freund on Police Powers..... 27

Thayer, J. B., "Origin and Scope of American Doctrine of Constitutional Law"..... 37

No. 665

IN THE

Supreme Court of the United States

THE VILLAGE OF EUCLID and HARRY W. STEIN, Inspector of Building,

Appellants,

v.

THE AMBLER REALTY COMPANY,

Appellee.

Appeal from the District Court of the United States for the Northern District of Ohio, Eastern Division

---

BRIEF ON BEHALF OF THE NATIONAL CONFERENCE ON CITY PLANNING, THE OHIO STATE CONFERENCE ON CITY PLANNING, THE NATIONAL HOUSING ASSOCIATION AND THE MASSACHUSETTS FEDERATION OF TOWN PLANNING BOARDS, Amici Curiae.

(The opinion of the District Court in this case is reported in *Ambler Realty Company* v. *Village of Euclid,* 297 Fed. R. 197.)

PURPOSE AND SCOPE OF THIS BRIEF.

This brief is designed to discuss solely the question of the constitutionality of comprehensive zoning. We do not intend to argue any issues of either fact or law which may have been raised by the parties to the case, except as they

relate themselves to this matter of the constitutionality of zoning. The attorneys for appellee suggest that this case may turn upon the reasonableness or arbitrariness of that detail of the ordinance which has placed appellee's land in a residential rather than an industrial zone. We would agree that the decision in this or any other case may turn upon the reasonableness, that is, the general appropriateness of the specific districting involved in the case. In so far as the contentions of the parties relate to the reasonableness or arbitrariness of the Euclid Village ordinance itself in its districting of the particular property of the appellee, that is, in so far as the issues of this case relate themselves specially to this ordinance and its provisions for this piece of property, we do not feel it within our province to present any statement whatever. The attorneys of the appellee, however, have not chosen to restrict themselves to an attack upon a particular provision of this particular ordinance or the special nature of its effect upon the particular piece of property of the appellee, but have attacked the constitutionality of zoning of the general type of the ordinance in this case. As they have sought to support that attack by what we deem to be fallacious arguments on constitutional law, as well as entirely mistaken citation of authorities, and as many general expressions in the opinion of the District Judge may be and are being interpreted as adverse to the validity of zoning, and as we deem zoning to be a vital necessity to the welfare of that increasing majority of the inhabitants of the United States who live in urban communities, we have availed ourselves of the leave granted by the Court to file this brief.

WHAT IS ZONING?

Zoning is the regulation by districts of building development and uses of property. A typical zoning ordinance divides the territory covered by the ordinance, usually the whole territory of a single municipality, into districts, in each of which uniform regulations are provided for the

uses of buildings and land, the height of buildings and the area or bulk of buildings and open spaces. By use regulation is meant a statement of the permitted or prohibited uses of property and buildings, as, for instance, residential, business and industrial. Use districts are often further sub-classified, as, for instance, residential districts into those restricted to single-family houses and those in which multiple-family or apartment structures are permitted; business districts into central and local and those in which light manufacturing is permitted or excluded; industrial districts for light manufacturing, for heavy but non-nuisance types of industry, and nuisance or unrestricted districts. Height regulations fix the height to which buildings or portions thereof may be carried. Area regulations fix the amount or percentage of the lot which may be occupied by a building or its various parts and the extent and location of open spaces, such as building set-backs, side yards, rear yards. The typical comprehensive ordinance includes all these types of regulations.

A confusion in terminology, and, therefore, some confusion in the statements of the law has taken place by reason of an inaccurate use of the word "zoning" and by designating as "zoning ordinances" measures which are not entitled to the name. A zoning ordinance necessarily consists of a map of the zoned territory showing the boundaries of the districts, and of a text which applies the various regulations to the various districts as shown on the map. There are other types of ordinances often erroneously referred to as zoning ordinances. For instance, a customary type is one that sets forth a definition of a residential area according to the extent of actual residential development therein, and prohibits nonresidential developments in any area which may fulfill the definition. This sort of ordinance is more properly termed a "block" or "residential district" ordinance; but it is not zoning. It does not district the whole or a substantial portion of the city by means of a map, allotting each type of regulation to its most appropriate territory.

On the contrary, it selects certain portions of the city which have developed predominantly as residential, and protects these selected portions, without making any provision for the remainder of the territory of the city; and thus, in effect, it permits the existing users of property in the protected areas to determine the standards of use by other property owners. Many of these block ordinances have been upheld by the courts. Obviously, however, the true zoning ordinance, which is a comprehensive distribution of the whole or a major portion of the territory of the community among all the necessary uses of every kind, each with appropriate standards of height and occupancy, all worked out as a community plan for the promotion of the common health, safety and welfare, has elements of reasonableness which the block ordinance does not possess. Consequently the validity of a block type of ordinance shows, a fortiori, the validity of the comprehensive true zoning ordinance; but the invalidity of the block type does not indicate the invalidity of the true zoning ordinance. Several courts have recognized the basic difference, from a constitutional standpoint, between these types of measures. The courts of New York, Ohio and Louisiana, for instance, uphold zoning, including the creation of exclusively residential districts, but have invalidated certain block or residential district ordinances upon the express ground that these ordinances arbitrarily selected certain districts for protection and did not represent a careful, comprehensive plan for the zoning of the city. See *Wertheimer* v. *Schwab*, 210 N. Y. Supp. 312; *City of Youngstown* v. *Kahn Bros. Co.*, 112 O. S. 654, and *State, ex rel.*, v. *Harris*, 105 So. R. 33, 158 La. ———.

This brief is concerned with the constitutionality of the true zoning ordinance and not with the block or residential district type.

THE REMARKABLE SPREAD OF ZONING IN THE UNITED STATES.

That zoning represents a pressing need in growing American cities and urban regions is evidenced by the fact of the remarkable growth of the zoning movement. The first comprehensive zoning ordinance was that of New York City, adopted in 1916, though there were tentative types of such ordinances previous to that date, such as the Los Angeles use ordinances in 1909 and the Boston height zoning in 1904. The latest bulletin issued by the Housing and Zoning Bureau of the U. S. Department of Commerce states that on the first of January, 1926, 420 American municipalities had enacted zoning ordinances and more than 27,000,000 of our inhabitants were living under the protection of such measures. Hundreds of other municipalities are engaged in the preparation of zone plans. All but five states, as well as Congress on behalf of the District of Columbia, have passed zoning statutes. This alone demonstrates the conviction, on the part of those who deal with the problems of urban living in the United States, that zoning is absolutely essential if conditions of living are to remain tolerable and healthful. These facts indicate the existence of the need, and that zoning represents the "prevailing morality or strong or preponderant opinion" of the people of this country as to the best and most just method of controlling the development of growing urban communities in the interest of the health, convenience and welfare of their inhabitants.

VALIDITY OF ZONING HAS BEEN UPHELD BY SUPREME COURT OF OHIO AND CONSEQUENTLY THE ISSUE BEFORE THIS COURT IS RESTRICTED TO THE FEDERAL CONSTITUTIONAL QUESTION.

Since the instant case was decided by the District Court, the Supreme Court of Ohio has upheld the constitutionality of zoning in the case of *Pritz* v. *Messer*, 112 Ohio State

628, 149 N. E. R. 30. The situation with which the court was dealing in that case was concerned with area and height rather than with use regulations; but, being the first zoning case to reach it, the Ohio Supreme Court treated the validity of comprehensive zoning as involved, and both in the opinion and in the official syllabus, which, under the practice in Ohio, has the status of the authoritative statement of the law, the court passed upon the larger question, including use regulation. The official syllabus, adopting the title of the Ohio zoning statute, reads:

> "An ordinance enacted by a municipality under Article XVIII, Section 3 of the Ohio Constitution and under Sections 4366-1 to 4366-12, General Code, dividing the whole territory of the municipality into districts according to a comprehensive plan which, in the interest of the public health, public safety and public morals, regulates the uses and the location of buildings and other structures and of premises to be used for trade, industry, residence or other specific uses, the height, bulk, or location of buildings and other structures thereafter to be erected or altered, including the percentage of lot occupancy, set back building lines, and the area of yards, courts and other spaces, and for such purposes divides the city into zones or districts of such number, shape, and area as are suited to carry out such purposes, and provides a method of administration therefor and prescribes penalties for the violation of such provisions, is a valid and constitutional enactment."

Consequently, the conformance of zoning ordinances, of the type of the Euclid Village ordinance, with the constitution of Ohio must be treated as settled and determined, and the constitutional issue before this Court is restricted to the federal constitutional question.

THIS COURT HAS SUSTAINED THE VALIDITY OF ZONING REGULATIONS.

Zoning questions are not an entire novelty in this Court. On the contrary this Court, in two leading cases, has had

occasion to pass upon the validity of ordinances of a zoning nature and in each case upheld the ordinance.

Welch v. *Swasey*, 214 U. S. 91 (1909), upheld an ordinance of Boston, which divided the territory of that city into height zones or districts and prescribed the maximum height of buildings in each of the zones. The attack on the ordinance was based on the usual claims in this type of case—that the real purpose of the ordinance was aesthetic, that there was no substantial relation to health and safety, that the zone classification was arbitrary, that no compensation to property owners was provided. This Court overruled all these claims, and held that the relation of the measure to health and safety was easily observable, and that no compensation need be provided in cases of the reasonable exercise of the police power; and affirmed the judgment of the Supreme Judicial Court of Massachusetts upholding the ordinance.

Hadacheck v. *Sebastian*, 239 U. S. 394 (1915), is analogous to the case at bar, for in that case use regulation was involved. It was concerned with an ordinance of Los Angeles, which excluded brickyards and certain other industrial uses from a residential zone. The brick plant had been located before the district became designated as residential. The ordinance was therefore retroactive in its effect (which the Euclid Village ordinance is not) and the evidence tended to prove that the owner of the property would suffer heavy financial loss in the reduction in value of his property, if the ordinance were enforced against him. The ordinance had characteristics of both the block and zoning types and might be considered a partial zoning ordinance in that it was one of a group of measures which divided the city into residential and non-residential zones. This Court affirmed the judgment of the Supreme Court of California enforcing the ordinance. This decision, as well many state decisions which might be cited, effectively disposes of the contention of appellee that use regulation is unconstitutional though height and area regulation may not

be. Obviously the constitution makes no such distinction. Regulation of the use of property, when it bears a substantial relation to public health, welfare, etc., has exactly the same constitutional basis and justification as regulation of height and area or any other exercise of the police power over persons or property.

Since these two decisions, the technique of zoning has advanced to the comprehensive type, which includes height, use and area regulation as parts of a single plan, based on careful surveys, made more reasonable by careful adjustment to the economic, as well as social, factors involved. In the comprehensive ordinance, the locating of the districts and the height, use and area standards are adjusted to a carefully wrought plan for the promotion of the health, safety, convenience and welfare of the whole community. Such an ordinance is emphatically more reasonable in the constitutional sense than the separate height or use regulations embodied in the Boston and Los Angeles measures upheld by this Court.

The extent of the zoning movement, its importance to American urban communities and some adverse expressions in the opinion of the District Judge in this instant case warrant an extended discussion of the subject of the constitutional bases of zoning ordinances and their relation to public health, safety, convenience, morals, prosperity and welfare, even though these two prior decisions of this Court might logically be cited as conclusive.

Before entering into this discussion, we desire to refer to and dispose of two lines of attack and denunciation which are usually invoked in police power cases, namely, the charge that the measure under attack has an effect on the value of the complainant's property which in and of itself makes the measure unconstitutional (this effect being sometimes called "confiscatory"), and, secondly, the charge that the measure constitutes a taking of property without compensation.

EFFECT OF POLICE POWER REGULATION ON VALUE OF PURELY PRIVATE PROPERTY CAN NEVER BE THE TEST OF CONSTITUTIONALITY; FOR SUCH TEST BEGS THE CONSTITUTIONAL QUESTION.

The briefs of the attorneys of record contain frequent references to the effect of the ordinance upon the value of appellee's land. There is danger of confusion of thought as to the relevance and constitutional effect of evidence of this nature. The principle that pecuniary injury resulting from an exercise of the police power does not demonstrate or indicate the violation of constitutional limitations, is too well settled to require further argument or citations. To ascertain the value of the property previous to the enactment of a regulation and then to estimate the value with the regulation in effect and, if the latter figure be less than the former, to then conclude that the regulation must be invalid, is, obviously, a begging of the constitutional question. Such a contention seeks to disprove the existence of a legislative power by assuming a right to be free from such legislative power. The question before us, for instance, is whether the community has the power, as part of a comprehensive zone plan, to restrict property in certain districts to residential uses. To contend that, if the property was acquired for a non-residential use, the purpose of the acquisition would be impaired and the legislation thereby rendered unconstitutional, is a pure begging of the question. One may not speculate upon a community's not exercising its constitutional police power and then claim a vested property right in the community's non-action. In truth, the old value for which protection is claimed may have been produced, in whole or part, by the very evils against which the legislation is directed. The right to make a noise or congest the streets or impair the living conditions of a residential neighborhood may give a specific piece of land more value than it would have for residential

use; but surely there can be no such vested interest in any such right as would preclude the legislature from exercising its regulatory powers. In *Hadacheck* v. *Los Angeles*, *supra*, Mr. Justice McKenna, speaking for this Court, said:

> "It is to be remembered that we are dealing with one of the most essential powers of government, one that is the least limitable. It may, indeed, seem harsh in its exercise, usually is on some individual, but the imperative necessity for its existence precluded any limitation upon it when not exerted arbitrarily. A vested interest can not be asserted against it because of conditions once obtaining."

Consequently, whatever confiscation may mean in the constitutional sense, it can not refer to that effect on future speculative values which is a necessary incident of the very existence of the police power.

This does not necessarily signify, however, that evidence of the effect of a particular zone plan on the value of a specific piece of property has no relevance whatever to the constitutional issue. Property derives its value from its appropriateness, by reason of location, for certain uses, and the fact that a zoning ordinance causes a substantial impairment of value may be evidence, not conclusive or presumptive, but an item of evidence of arbitrary, unreasonable zoning; that is of zoning which, in fixing the boundaries between the various zones, has been careless of or has ignored this factor of appropriateness of location. The reasonableness of the plan, in the constitutional sense of reasonableness, is, of course, in issue in any case in which the validity of the plan is attacked, and this brings into issue the question whether the plan represents a genuine attempt to apply sound zoning standards, including a reasonable degree of consideration of the appropriateness of the various regulations to the different sections of the city by reason of location, topography, access to utilities, population trends and other factors. But to contend that a

showing of so and so much reduction in the value of a particular piece of land proves the invalidity of the ordinance, would plainly represent a confusion of thought and a begging of the constitutional question.

ZONING NOT A TAKING OF PROPERTY—QUESTION OF COMPENSATION NOT INVOLVED.

The attorneys of appellee dwell considerably on the absence of provision for direct money compensation to be paid to the property owners. This is wholly beside the point. The ordinance is frankly and expressly an exercise of the police power and not of the power of eminent domain. The community is not taking or destroying any property or property rights for public use. The ordinance is exclusively regulative. As stated in *Chicago, ex rel. R. R. Co.*, v. *People*, 200 U. S. 561:

> "If the injury complained of is only incidental to the legitimate exercise of governmental powers for the public good, then there is no taking of property for the public use, and a right to compensation, on account of such injury, does not attach under the Constitution. Such is the present case. There are, unquestionably, limitations upon the exercise of the police power which can not, under any circumstances, be ignored. But the clause prohibiting the taking of private property without compensation 'is not intended as a limitation of the exercise of those police powers which are necessary to the tranquility of every well-ordered community, nor of that general power over private property which is necessary for the orderly existence of all governments. It has always been held that the legislature may make police regulations, although they may interfere with the full enjoyment of private property, and though no compensation is given.' Sedgw. Stat. & Const. Law, 434."

In the case of *Pennsylvania Coal Co.* v. *Mahon*, 260 U. S. 393, 413, this Court said:

> "Government hardly could go on if to some extent values incident to property could not be diminished

> without paying for every such change in the general law. As long recognized some values are enjoyed under an implied limitation and must yield to the police power."

Appellee's attorneys seem to rely greatly on this Pennsylvania Coal Company case. But the statute involved in that case is utterly different from and remote in kind, character and degree from a zoning law or ordinance. In that case the statute destroyed, not regulated, but destroyed a property title or interest expressly created by and reserved in a deed. The right of the mining company to mine coal was created by specific and express deeds and the statute expressly abolished that right. In stating the facts of the case, Mr. Justice Holmes, who delivered the opinion, said, p. 413:

> "As applied to this case the statute is admitted to destroy previously existing rights of property and contract." * * * "It (the statute) purports to abolish what is recognized in Pennsylvania as an estate in land—a very valuable estate—and what is declared by the Court below to be a contract hitherto binding the plaintiffs."

The case at bar is in no way analogous to that case nor remotely similar. No property or contract right created by deed or other instrument is here in any respect abolished, suppressed, destroyed or even regulated. The property rights asserted are simply those which inhere generally in all owners of land; and it is axiomatic that all property is held subject to the general right of the public to regulate its use for the promotion of public health, safety, convenience, welfare. Zoning regulations are quite free from and outside of the scope of the Pennsylvania Coal Company case, in which specified property interests created by contract were destroyed by the statute. It is quite evident that this Court did not consider that case as having

any relevancy to regulations of the nature of zoning regulations; for not only did it not overrule, it did not even mention the cases in which it had sustained regulations similar to zoning regulations, namely, *Welsh* v. *Swasey*, *supra*, and *Hadacheck* v. *Sebastian*, *supra*. Surely if the Pennsylvania Coal Company decision had been conceived as in any respect modifying or overruling or affecting these cases, they would have been mentioned by this Court.

As stated by Judge Peckham in *Health Department* v. *Rector*, 145 N. Y. 32, 43:

> "Laws and regulations of a police nature, though they may disturb the enjoyment of individual rights, are not unconstitutional, though no provision is made for compensation for such disturbances. They do not appropriate private property for public use, but simply regulate its use and enjoyment by the owner. If he suffer, injury, it is either damnum absque injuria, or, in the theory of the law, he is compensated for it by sharing in the general benefits which the regulations are intended and calculated to secure."

Eliminating from further consideration, therefore, these confusing contentions about compensation or confiscation, we address ourselves to the relevant issues involved in the question whether comprehensive zoning is within the constitutional scope of the police power.

THE STATE OF THE AUTHORITIES.

While there have been a few decisions adverse to the constitutionality of zoning, the favorable decisions greatly outnumber them; and the overwhelming weight of authority, as expressed in judicial decisions, is in favor of the constitutionality of zoning. Former assertions to the contrary were due to the fallacy of including, as citations, cases which do not involve true zoning ordinances but which are upon block or residential district or other types of ordinances, or cases dealing with questions of

statutory power or statutory interpretation and not with constitutionality. In his opinion in this instant case in the court below, Judge Westenhaver cited numerous cases but only two which involved true zoning ordinances, one of them from Missouri and the other a California case which has been since reversed by the Supreme Court of that state.

We desire to call to the Court's attention that since the decision of the District Court in the case at bar, the highest courts of Massachusetts, California, Minnesota, Ohio, Illinois, Oregon and Rhode Island, have each and all of them upheld zoning in clear-cut cases and with decisive opinions, and the highest courts of New York, Wisconsin, Louisiana and Kansas have reaffirmed their previous holdings to this same effect. Any contentions in the arguments before the District Court that the constitutional issue was in an uncertain, conflicting or indecisive stage has ceased to have any basis. Every one of these decisions upheld the creation of exclusively residential districts and the exclusion of nonnuisance industries and business therefrom, and many of them upheld the creation of exclusively single-family home districts from which apartment houses were excluded.

The following, so far as can be learned from available sources of which we know, constitute all the decisions, at the date of writing this brief (July 14, 1926), upon the constitutionality of zoning, both favorable and adverse. No case has been included in the list of favorable decisions unless it could be properly treated as a zoning case or unless decided wholly or in part upon or necessarily involving the constitutional question. Many cases on block ordinances or other types of property regulation lead logically to the upholding of zoning, but such cases have not been included. Many cases have arisen in the course of the administration of zoning ordinances, particularly in the state of New York, which necessarily assume the validity of the ordinance, but in which that issue was not raised or decided, and such cases have not been included in the list.

On the other hand, in the list of adverse cases have been included all those in which any provision of a zoning ordinance has been declared invalid or whose logic would invalidate zoning in general, even though the court expressly stated that it was not determining the validity of zoning in general or even though the court expressly upheld the validity of zoning.

In order that the list may be complete, we have included decisions of nisi prius courts and unreported cases.

Favorable Decisions of Highest and Appellate State Courts.

CALIFORNIA.

Blumenthal & Co. v. *Cryer*, 236 Pac. 216 (Cal. App. 1925). (Apartment in single-family district.)

Ex parte Quong Wo, 161 Cal. 220 (an early type of use zoning case treated by a rather strained process as a nuisance case); *Brown* v. *City of Los Angeles*, 183 Cal. 783, is similar; also *Ex parte Hadacheck*, 165 Cal. 416, affirmed under name *Hadacheck* v. *Sebastian*, 239 U. S. 394. (Laundry and brickyard in residential district.)

Fourcade v. *City and County of San Francisco*, 238 Pac. R. 934. (Supreme Court of California, 1925.) (Milk pasteurizing, bottling and distributing plant in residential district.)

Miller v. *Board of Public Works of Los Angeles* (Supreme Court of California, 1925), 234 Pac. R. 381. (Four-family apartment building in single and double-family district.)

Zahn v. *Board of Public Works of Los Angeles*, 234 Pac. R. 388 (Supreme Court of California, 1925), reversing 43 Cal. App. 663. (Store in residential district.)

ILLINOIS.

Deymzer v. *City of Evanston*, 149 N. E. R. 784, and *City of Aurora* v. *Burns*, 149 N. E. R. 790. (Supreme Court of Illinois, December, 1925.) (Apart-

ment house in single-family district and stores in residential district.)

KANSAS.

Ware v. *City of Wichita*, 113 Kan. 153, 214 Pac. R. 99. (Store in residential district.)

West v. *City of Wichita*, 118 Kan. 265, 234 Pac. 978 (1925). (Apartments in single-family districts.)

LOUISIANA.

City of New Orleans v. *Liberty Shop*, 157 La. 26, 101 So. R. 798 (1924). (Retail store in residential district.)

State, ex rel. Civello, v. *New Orleans, La.* (and other cases of the same group), 154 La. 271-295, 97 So. R. 440, 445, 446 (1923). (Stores and manufacturing plant in residential district.)

State, ex rel. Gianygrosso, v. *New Orleans*, 159 La. —, 106 So. R. 549. (Supreme Court of Louisiana, 1925.) (Filling station and soft-drink stand in residential district.)

MAINE.

Opinion of Justices, 124 Me. 502, 129 Atl. Rep. 181 (1925).

MASSACHUSETTS.

Welch v. *Swasey*, 193 Mass. 364, 214 U. S. 91. (Height regulation.)

Opinion of Justices, 234 Mass. 597.

Building Inspector of Lowell v. *Stoklosa*, 250 Mass. 52, 145 N. E. R. 262 (1924). (Store in industrial district.)

Brett v. *Building Inspr. of Brookline*, 250 Mass. 73, 145 N. E. R. 269 (1924). (Apartment house in single-family district.)

Bradley v. *Board of Zoning Adjustment of Boston* (S. C. Mass. 1926), 150 N. E. R. 892.

Spector v. *Building Inspr. of Milton* (1924), 250 Mass. 63, 145 N. E. R. 265. (Stores in residential district.)

MINNESOTA.

State, ex rel. Beery, v. *Houghton, Inspector* (Supreme Court of Minnesota, July, 1925), 204 N. W. R. 569. (Apartment in single-family district.)

NEW YORK.

Lincoln Trust Co. v. *Williams Bldg. Corp.,* 229 N. Y. 313. (Store in residential district.)

Matter of Wulfsohn v. *Burden,* 241 N. Y. 288, 150 N. E. R. 120. (November 24, 1925, affirming Supreme Court, App. Div., 1925.) (Apartment house in single-family district and set-backs.)

Cohen v. *Rosedale Realty Co.,* 199 N. Y. Supp. 4; and *People, ex rel. Rosedale Realty Co.,* v. *Kleinert,* 237 N. Y. 580, an affirmance without report of decisions of the Supreme Court and Supreme Court, Appellate Division. (Apartment house in single-family district.)

Headley v. *Fennell,* Supreme Ct. of N. Y., App. Div., 124 Misc. 886, 210 N. Y. Supp. 102. (Apartment house in single-family district.)

In re Cherry, 193 N. Y. Supp. 57, 196 N. Y. Supp. 920, 234 N. Y. 607.

Matter of McGarry v. *Walsh* (Supreme Court, Appellate Division), 210 N. Y. Supp. 286.

Palmer v. *Mann,* 198 N. Y. Supp. 548, 201 N. Y. Supp. 525. (Height regulation.)

People, ex rel. Werner, v. *Walsh,* 209 N. Y. Supp. 454, 212 App. Div. 635. (Garages in business district.)

OHIO.

Pritz v. *Messer* (Supreme Court of Ohio, May 19, 1925), 112 O. S. 628, 149 N. E. 30. (Area regulations of apartment house.)

State, ex rel. Dantzig, v. *Durant* (Ohio Court of Appeals, Vol. XXI Ohio Law Bulletin and Reporter

395, Jan. 14, 1924 number.) (Apartment in single-family district.)

OREGON.

Kroner v. *City of Portland*, 240 Pac. R. 536. (Supreme Court of Oregon, December, 1925.) (Creamery in residential district.)

RHODE ISLAND

City of Providence v. *Stephens* (Supreme Court of Rhode Island, June 11, 1926) 133 Atl. Rep. 614. (Apartment house in more restricted residential district.)

WISCONSIN.

Holzbauer v. *Ritter*, 184 Wis. 35, 198 N. W. R. 852 (1924). (Stores in residential district.)

State, ex rel. Carter, v. *Harper, Bldg. Inspector of Milwaukee* (1923), 182 Wis. 148, 196 N. W. 451. (Wholesale and retail business in residential district.)

Favorable Decisions of Inferior Courts.

ALABAMA.

Standard Oil Co. v. *Commissioners of Montgomery* (Circuit Court, Alabama, 1925). (Filling station in residential district.)

COLORADO.

Milton v. *Azpell* (District Court, Colorado, August, 1925). (Store in residential district), and *Wills* v. *Board of Adjustment of Denver* (District Court, Colorado, October, 1925). (Brickyard adjoining an existing brickyard in a residential district.)

CONNECTICUT.

City of Hartford v. *Katz* (Superior Court, Connecticut, 1925). (Filling station in residential district.)

DISTRICT OF COLUMBIA.

U. S., ex rel. Stearman, v. *Oehmann,* Supreme Court, District of Columbia, July 6, 1925. (Exclusion of stores from residential district. Zoning ordinance of Washington.)

NEW JERSEY.

Hench v. *City of East Orange,* 130 Atl. R. 363.

Schait v. *Senior,* 97 N. J. L. 390, 117 Atl. R. 517.

NEW YORK.

In re Collins (N. Y. Supreme Court, May, 1925), 211 N. Y. Supp. 437. (Laundry in residential district.)

People, ex rel. Stevens, v. *Clark,* 213 N. Y. Supp. 350. (Supreme Court, 1925.) (Apartment house area and bulk regulations.)

NORTH DAKOTA.

City of Bismarck v. *Hughes* (District Court, North Dakota, 1925). (Apartment house in single-family district.)

OHIO.

People, ex rel. Morris, v. *Osborn,* 22 Ohio N. P. (N.S.) 549, 51 Ohio Decisions 98, 197. (Apartment in single-family district.)

Santangelo v. *Cincinnati,* 25 Ohio N. P. (N.S.) 49 Ohio Law Bulletin and Reporter, Aug. 11, 1924. (Stores in residential district.)

PENNSYLVANIA.

Appeal of Armstrong. (Common Pleas Court of Allegheny County, Pa.) (Semi-nuisance industry.)

In re American Reduction Co., 72 Pittsburgh Legal Journal 321, 326. (Nuisance industry.)

TENNESSEE.

City of Memphis v. *Spencer-Sturla Co.* (Circuit Court of Shelby County, Tennessee.) (Funeral home in residential district.)

Adverse Decisions in Highest and Appellate State Courts.

CALIFORNIA.

Ex parte White (Cal. App.), 234 Pac. R. 396. (Court upheld validity of zoning, but declared particular ordinance invalid because of unreasonably restricted size of business district.)

DELAWARE.

City of Wilmington v. *Turk*, Del. Ch., 1925, 129 Atl. 512. (Exclusion of nurses' private hospital in a residence zone.)

GEORGIA.

Smith v. *City of Atlanta.* (Supreme Court of Georgia, 1926) 161 Ga. —, 132 S. E. Rep. 66. (Stores in residential district.)

Morrow v. *City of Atlanta* (Supreme Court of Georgia, May 13, 1926) 133 S. E. Rep. 345. (Tire repair shop in residential district.)

MARYLAND.

Goldman v. *Crowther*, Court of Appeals of Maryland (1925), 147 Md. 282, 128 Atl. R. 50. (Store in residential district.) (See able dissenting opinion.)

MISSOURI.

State, ex rel. Penrose Inv. Co., v. *McKelvey; City of St. Louis* v. *Evraiff*, and *State, ex rel. Better home Co.*, v. *McKelvey* (1923), 301 Mo. 1, 231, 130; 256 S. W. R. 474, 489, 495 (three cases arising from the St. Louis ordinance. Junk yard and industries in business district. Able dissenting opinion. Missouri had no zoning enabling statute and in the opinions questions of statutory power were mixed with constitutional questions.)

NEBRASKA.

State, ex rel. Westminster Church, v. *Edgecomb,* 108 Nebr. 859. (Involved one of the area restrictions only, without passing upon validity of zoning and case has not been interpreted in Nebraska as invalidating zoning.)

NEW JERSEY.

State, ex rel. Ignacunias, v. *Risley* (1923), 98 N. J. L. 712, 121 Atl. R. 783, affirmed in 125 Atl. R. 121. (Stores and apartment houses in double-family residential district.) (This is known as *Nutley* case and is the leading New Jersey case. New Jersey municipalities seem to have kept on enforcing zoning ordinances, with the result that on the authority of the *Nutley* decision a large number of adverse decisions, cited below, have been rendered by inferior New Jersey courts.)

The Court of Error and Appeals affirmed its position in

Krumgold v. *Mayor* (1925), 130 Atl. R. 635. (Stores in residential district), and

Ingersoll v. *South Orange* (1925), 130 Atl. R. 721, affirming 126 Atl. R. 213, 128 Atl. R. 393. (Apartment house in single-family district.)

Adverse Decisions in Inferior Courts.

NEW JERSEY.

Numerous decisions of Supreme Court of New Jersey in 1924 and 1925 based on above cited *Nutley* case: *Huppert* v. *Jersey City; King* v. *Bldg. Insp. of Lydnhurst; Plymouth Co.* v. *Newark; R. & B. Realty Co.* v. *Passaic; White* v. *Ridgefield; Eaton* v. *Village of South Orange; Heller* v. *Village of South Orange; Kantorowitz* v. *Bigelow; Williams* v. *Gage,* 130 Atl. R. 362, 364, 365, 366, 534, 721, 811; *Becker* v. *Dowling, Falco* v. *Kalterbach, Inspr. of Bldgs. of City of Elizabeth; Sarg* v. *Hooper; State, ex rel. Losick,* v. *Binda, Bldg. Inspr. of Township of Weehawken; State, ex rel.*

Nelson Bldg. Co., v. *Binda, Inspr. of Bldgs. of Township of Weehawken; Union County Development Co.* v. *Kaltenbach, Bldg. Inspr. of Elizabeth*, 128 Atl. Rep. 376, 394, 395, 396, 618, 619; *State, ex rel. Jersey Land Co.*, v. *Scott*, 126 Atl. R. 173; *Prince* v. *Board of Montclair*, 129 Atl. R. 123. (These decisions are concerned with exclusions respectfully of stores, filling stations, stables from residential districts and apartment houses from single-family districts.)

OHIO.

State, ex rel. Ball, v. *Harris*, Common Pleas Court of Trumbull County, 1926. (Set-back provisions in residential district.)

PENNSYLVANIA.

Appeal of White from Board of Appeals of Pittsburgh, Superior Court, Western Dist., Pennsylvania, July 9, 1925. (Invalidated set-back provisions based on set-backs of existing buildings.)

It will be noted from the above citations that the strong weight of authority, both in the highest and appellate courts and in courts of first instance, is in favor of the constitutionality of zoning; favorable decisions having been rendered by the highest courts of New York, Louisiana, California, Wisconsin, Massachusetts, Kansas, Ohio, Minnesota, Illinois, Rhode Island and Oregon, as against adverse decisions in Missouri, New Jersey, Maryland, Georgia and perhaps Delaware.

General discussions of the subject and citations will be found in the following articles: Constitutionality of Zoning, by Alfred Bettman, 37 Harvard Law Review 834; Constitutionality of Zoning Laws, by Newman F. Baker, 20 Illinois Law Review 213 (November, 1925); City Planning and Restrictions on Property, by J. S. Young, 9 Minnesota Law Review 593 (June, 1925).

ANALOGIES WITH OTHER TYPES OF REGULATION OF PROPERTY.

Zoning has Same Fundamental Purposes and Justification as All Other Property Regulation, Including Law of Nuisances; but Zoning is not Mere Suppression of Nuisance; it is Constructive Planning for Prevention of Developments Detrimental to Public Health, Convenience, Safety, Morals and Welfare.

Zoning is simply a modern mode or application to modern urban conditions of recognized and sanctioned methods of regulating property in the interest of the public health, convenience, safety, morals and welfare. Zoning bears distinct analogies to the recognized and sanctioned modes of such regulation. The fallacy underlying much of the argument against zoning consists in treating the methods of the exercise of legislative power as fixed once and forever, and in declaring that whatever new evils may grow up in the community, the community is impotent if it can not deal with the evil with exactly the same devices as those with which it dealt with other evils fifty or a hundred years ago. The analogous modes of regulation point the way, but can never fix the constitutional limitations; otherwise law would remain unchangeable and impotent.

What, for example, is the relationship of zoning to the law of nuisances? The term "nuisance" is usually applied to those developments which are offensive in the most crude and obvious way, in which cause and effect are not only quite obvious to the naked ear or nose, but are also not far apart in either space or time. A slaughter house or foundry next door to a residence, throwing its odors or clanging noises into that residence over an intervening space of a few feet, is a nuisance. The law of nuisance, however, has precepts and a philosophy, as well as illustrations. The philosophy underlying the above illustration is nothing more or less than the old adage that a man shall not so use his property as to injure another; and the precept, that a man may not send noise or odor or other dis-

turbing substances or vibration into or onto his neighbor's property. The law of nuisance operates by way of prevention as well as by suppression. The zoning ordinance, by segregating the industrial districts from the residential districts, aims to produce, by a process of prevention applied over the whole territory of the city throughout an extensive period of time, the segregation of the noises and odors and turmoils necessarily incident to the operation of industry from those sections of the city in which the homes of the people are or may be appropriately located. The mode of regulation may be new; but the purpose and the fundamental justification are the same. If, as is the case, one of the aims of zoning be to segregate industrial and commercial street traffic from the lighter and quieter forms of street traffic, by means of the segregation of the districts in which these different types of traffic normally develop, then zoning becomes obviously a mode of prevention of noise and dangers. Experience demonstrates that unregulated city growth tends to subject the home districts to offensive environment; and not much imagination is needed to realize that zoning can counteract this tendency.

The law concerning highway obstruction furnishes another analogy. The owner of property abutting on a street may be forbidden to place a permanent or temporary obstruction across the sidewalk. The owner of a skyscraper might be held, without going beyond the bounds of reason, to contribute more than his fair share of street obstruction, by the stream of pedestrians and vehicles which he draws to or pours out from his property. The law may and does prohibit the abutting property owner from staging an attractive entertainment in his show window, such as would tend to draw a crowd to that part of the street. The very number of persons or vehicles drawn to a section of the street by the high buildings located along it may be equally obstructive. Limitations of height or of other forms of building intensity have an obvious relationship to freedom of movement on the highway and to traffic control.

The regulation of intensity of building development, as a means of preventing excessive gathering of human beings within a designated space, is a recognized mode of constitutional exercise of the police power. Tenement house and factory regulations specify standard minima of space per capita of occupant or operative. Analogously, the zone plan measures the territory of the city available for development, estimates the number of human beings who will live and work within the territory during the period of the life of the ordinance, gathers the topographic, economic and social facts of the territory, and, applying recognized principles of health, safety, economic prosperity and convenience to these data, determines such distribution of future residential, business, industrial and public structures and such standards of bulk and height of buildings as will moderate unwholesome and inconvenient congestion during the process of the growth of the city's population, business and industry. Zoning is an application to the whole territory of the community of the same basic motives and principles as justify, in the constitutional sense, the right to regulate congestion within the space of an individual piece of property or plant. Building laws specify standards of sunlight within the workshop or apartment. Building height limitation is designed, among other results, to regulate the amount of darkness which one building may throw into adjacent buildings or those across the street.

The limits of this brief do not permit an exhaustive indication of all the analogies of zoning ordinances to sanctioned modes of property regulation. The above will serve as sufficient illustrations. Perhaps another analogy might be referred to in passing, and that is the recognized power to enforce co-operation upon members of a group similarly situated, for the direct benefit of all of the group, with indirect benefit to the general public. The classic case is that of the enforced joint guarantee of bank deposits, *Noble State Bank* v. *Haskell*, 219 U. S. 104, where the principle is expressed:

> "It would seem that there may be other cases beside the everyday one of taxation in which the share of each party in the benefit of a scheme of mutual protection is sufficient compensation for the correlative burden that it is compelled to assume."

In the case of a zone plan, each piece of property pays, in the shape of reasonable regulation of its use, for the protection which the plan gives to all property lying within its boundaries. As stated in *State, ex rel. Carter,* v. *Harper,* 182 Wis. 148, a zoning case:

> "Except in cases of nuisance, there is a reciprocity of benefits resulting from limitations imposed upon the use of property by general laws. He who is limited in the use of his property finds compensation therefor in the benefits accruing to him from the like limitations imposed upon his neighbor."

These analogies have been sufficiently discussed to show that zoning represents no radically new type of property regulation, but merely a new application of sanctioned traditional methods for sanctioned traditional purposes.

Though zoning and, in truth, all property regulation has the same fundamental basis as the law against nuisances, neither zoning nor property regulation in general is restricted to or identical with nuisance regulation. Any attempt to reduce the constitutional law of property regulation down to the law of nuisances, fails to regard the principle so well expressed in *Bacon* v. *Walker,* 204 U. S. 311, where this Court said:

> "It (the police power) is not confined to the suppression of what is offensive, disorderly or unsanitary. * * * It extends to so dealing with the conditions which exist in the state as to bring out of them the greatest welfare of its people."

In other words, the police power acts not only suppressively, but also constructively for the promotion of the

public welfare.[1] As stated in Freund on Police Power, Section 29:

> "The common law of nuisance deals with nearly all the more serious and flagrant violations of the interests which the police power protects, but it deals with evils only after they have come into existence, and it leaves the determination of what is evil very largely to the particular circumstance of each case. The police power endeavors to prevent evil by checking the tendency toward it and it seeks to place a margin of safety between that which is permitted and that which is sure to lead to injury or loss. This can be accomplished to some extent by establishing positive standards and limitations which must be observed, although to step beyond them would not necessarily create a nuisance at common law."

That is just what a zoning ordinance does, namely, establishes standards and limitations of building use, height, and lot occupancy for the prevention of tendencies which, if permitted to develop, will have a detrimental effect upon the public health, safety, convenience, morals and welfare. In fact, the need of zoning has arisen to a considerable degree from the inadequacy of the technical law of nuisance to cope with the problems of contemporary municipal growth. Municipal councils are bombarded daily with pressure to prevent this or that proposed development, such as a public garage or filling station or industrial plant, which the neighbors dislike, and in the past attempted to meet such situations by block ordinances which, by reason of their attempt to protect selected neighborhoods or keep out selected types of proposed uses, may contain an element of arbitrariness and injustice. Such cases and enactments, coming before the courts from time to time, have produced such an elasticity of definition as to what is or may be declared a nuisance, that the term has ceased to have any definite meaning as a measure of legislative

[1] The above passages of this brief pp. 23 to 27 have been taken almost verbatim from the article "Constitutionality of Zoning" by the author of this brief in Harvard Law Review, May, 1924.

power. The decisions upon the definition of nuisance have become utterly irreconcilable. In *Ex Parte Quong Wo*, 161 Cal. 220, dealing with the exclusion of a laundry from a residential area, the Supreme Court of California justified the exclusion upon the principle that a laundry is "of such a nature that it may be confined in the lawful exercise of the police power within definite limits of a city," which is equal to saying that a use may be excluded if it be of a kind which may be excluded. A lawyer would often hardly hazard a guess as to whether his client's proposed industry will or will not be declared a nuisance. There is something manifestly unfair in requiring the owner of an industry to select and pay for his site, design his plant and even build before he can obtain any degree of assurance that he will be permitted to operate. The zone plan, by comprehensively districting the whole territory of the city and giving ample space and appropriate territory for each type of use, is decidedly more just, intelligent and reasonable than the system, if system it can be called, of spotty ordinances and uncertain litigations about the definition of a nuisance. Certainly the constitutional scope of the police power is not limited to the common-law of nuisances.

ZONING IS NOT FOR AESTHETIC PURPOSES.

The Charge of Aesthetic Motives Represents a Confusion Between Considerations of Taste and Beauty and Considerations of Orderliness, Cleanliness, Quiet and Healthfulness of Environment.

Appellee's attorneys constantly refer to aesthetic considerations and the promotion of beauty; seeking, apparently, to give the impression that the promotion of aesthetic values is the chief purpose of the creation of residential districts, and that this is something to be condemned or at least something which transcends constitutional powers. This Court has held, that if a measure finds its justification in considerations of health, convenience, safety, morals or

welfare, the presence of an aesthetic ingredient in the legislative purpose would not destroy the validity of the measure. See *Welch* v. *Swasey, supra; St. Louis Poster Advertising Co.* v. *City of St. Louis,* 249 U. S. 269. On this phase of the issues, we might rest our argument on this principle and admit that zoning ordinances, in addition to health, safety, convenience, morals and welfare, aim to improve the appearance of cities. Any such admission, however, would, in our opinion, contain a fallacious interpretation of the meaning of "aesthetic" in constitutional law, a term which has not as yet received any definite or authoritative interpretation. Zoning does aim to improve the good order of the cities, that is the general orderliness, which is perhaps, what appellee's attorneys have in mind. That is, however, something quite different from the artistic or the beautiful. An artist might prefer the slovenly streets of Naples to the neat American suburb. The essential object of promoting what might be called orderliness in the lay-out of cities is not the satisfaction of taste or aesthetic desires, but rather the promotion of those beneficial effects upon health and morals which come from living in orderly and decent surroundings. When we put the furnace in the cellar rather than in the living room, we are not actuated so much by dictates of good taste or aesthetic standards, as by the conviction that the living room will be a healthier place in which to live and the house a more generally healthful place if the furnace and the gas range and the shop, if there be one, and the other industrial, so to speak, features of the house are kept out of the living room and the sleeping rooms and the dining room. Similarly, the man who seeks to place the home for his children in an orderly neighborhood, with some open space and light and fresh air and quiet, is not motivated so much by considerations of taste or beauty as by the assumption that his children are likely to grow mentally, physically and morally more healthful in such a neighborhood than in a disorderly, noisy, slovenly, blighted and slum-like district. This assumption is indubitably correct. The researches of physicians and public

health students have demonstrated the importance of our physical environment as a factor in our physical health, mental sanity and moral strength; and the records of hospitals and criminal courts amply support these conclusions. The comparative health statistics of the planned and unplanned communities, so far as same have been gathered, tend to shew more favorable results in the former than in the latter. Disorderliness in the environment has as detrimental an effect upon health and character as disorderliness within the house itself. The individual can control the conditions inside of his house; but except in the case of the rarely wealthy individual who can afford to buy large open spaces owned and controlled by himself, it is the community and the community alone which can furnish the necessary environmental protection. Besides, the conditions outside the house affect the conditions within the house, as for instance the noise of industrial traffic affects the living conditions within the house, and the light and air conditions outside largely govern the light and air conditions inside. Zoning has, amongst others, this purpose of promoting public health, order, safety, convenience and morals by the promotion of favorable environmental conditions in which people live and work; which is something very different from aesthetic in the sense of pleasing to the eye or satisfying to artistic cravings.

GENERAL PRINCIPLES OF CONSTITUTIONAL LAW AND POLICE POWER.

It is hardly necessary to enter into extensive definitions of the police power or to repeat the standard quotations concerning its scope. As is well known, the police power is the whole reserve power of the community to legislate concerning persons and things in the interest of the promotion of the public health, the public morals, the public safety, the public convenience, the public order, the public prosperity and the general welfare. Police power is in truth little else than the whole legislative power except

those specific types of power which have names and definitions of their own, such as taxing power and eminent domain. Necessarily the police power is coextensive with the public needs. Like every other legislative power, it is subject to constitutional limitations. Accurately speaking, the power does not grow; for it is always complete. New public needs, new situations necessitate new methods, new legislative devices; as, for instance, American urban conditions present problems so different from the problems of early pioneer rural life, that new types of measures become necessary to solve them.

There are certain well-known fundamental principles of the application and procedure of constitutional law which need be stated in only the most general way and for which no citation of authorities is required. The acts of a legislative body are presumed to be constitutional, and he who attacks the validity has the burden of establishing his case. All doubts are resolved in favor of constitutionality, for courts do not declare laws unconstitutional unless convinced beyond all reasonable doubts. The Home Rule clause of the Ohio Constitution grants police powers to cities, so that a municipal ordinance of a charter city, limited to the territory of that city, has all the constitutional standing of a state statute and the tests of constitutionality are the same as those of a state statute. Reasonableness means the absence of arbitrariness, that is, the honest exercise of intelligence, that is, that the measure can represent the decision of an intelligent legislator, honestly aiming to promote the public health, etc. If reasonableness depends on circumstances, such circumstances are presumed to exist, and he who attacks an ordinance as unreasonable has the burden of demonstrating that the circumstances do not exist.

RELATIONSHIP OF ZONING TO THE PUBLIC HEALTH, SAFETY, CONVENIENCE, MORALS AND GENERAL WELFARE DEMONSTRATED BY THE EXPERIENCE OF AMERICAN CITIES AND CONCLUSIONS OF PERSONS QUALIFIED UPON THESE SUBJECTS.

We come then to the application of these general principles of police power and constitutional law. What are the needs which zoning is designed to meet and its appropriateness or reasonableness as a means of meeting these needs? Zoning is based upon a thorough and comprehensive study of the developments of modern American cities, with full consideration of economic factors of municipal growth, as well as the social factors. Volumes have been written on the needs, the technique and methods with which these needs are met and the factors of the problem. We have space here for only a short outline, with reference to a few points as illustrations; and we respectfully ask the Court to consider them simply as a few illustrations. A full discussion or a reading of the literature on the subject would demonstrate that zoning takes into account both economic and social factors of modern urban conditions and is most intimately and substantially related to and promotive of every phase of public health, public safety, public convenience, public order, public prosperity, public morals and general welfare.

Every one admits that the home and housing conditions bear an intimate relationship to health. "Own your own home" is a slogan based on this realization of the advantages, in the way of health, which come from the home which has a surrounding or environment of sunlight, air, quiet, and cleanliness. Parents prefer to bring up children in such environment, not for any snobbish or aesthetic reasons, but because it promotes the health, mental, moral and physical, of the children.

What happens in American cities is this: American urban communities grow quickly. New business and industrial plants are established and located with great frequency. Stores or industrial plants are, with considerable frequency, placed in residential neighborhoods, not always because of any imperative economic necessity for such location, but often by reason of all sorts of whims, accidents, mistaken judgments. The neighborhood immediately declines as a residential district. Those financially able to do so move further out, thus extending the residential territory which has to be served by water, gas and other public utilities, placing an added drain upon and increasing the cost of the community's transportation, street, light and other utility service. The store or factory bring business and industrial traffic, which is larger, noisier and more dangerous than the purely residential traffic. If the store or factory be simply the vanguard of a logically located business or factory district, then the district may develop promptly as a business or industrial district. But more often the locating of the store or factory in this district was a mistake or very premature or there are conditions not conducive to its upbuilding as a business or industrial area. So it declines as a residential area and does not upbuild as a business or industrial area. Land values become demoralized; the standard of living goes down. The district becomes a blighted district representing an economic loss to the community, the premature and unnecessary destruction of a healthful home district, the beginnings of a slum or mixed slum and industrial territory; in fact, all of the less healthful instead of more healthful urban conditions are speedily produced in that area. Every growing American city has these doleful and sordid and unhealthful evidences of this unnecessary and wasteful destruction of home districts by non-residential invasions.

As recently stated by Secretary Hoover in a letter to the President of the National Conference on City Planning:

> "The fact is constantly brought before me as Secretary of Commerce that lack of city planning and zoning constantly hampers commerce and industry in their basic function of serving mankind. This is particularly true in connection with housing and general living conditions, while the waste and inefficiency in transportation, and losses through bad location of structures are a constant drag on our resources, and tend to retard increases in living standards."

Gradually all areas except those protected by private restrictions (these being generally limited to newer and high-priced subdivisions) become a heterogeneous mixture of business, industrial and residential developments. This mixture places an added drain upon the police and fire departments of the community, since it takes more resources in the way of policing and fire prevention where uses of property are mixed than where they are segregated to some degree. Crime and vice increase in the blighted districts whose general conditions are more promotive of sickness and delinquency. Fewer and fewer streets are immune from the noises and dangers of business and industrial traffic. The unhygenic, unsafe, wasteful, costly and inconvenient conditions due to slums, blighted districts, congestion, spotty development of the growing but unplanned city grow constantly more and more beyond the community's capacity to cope with them.

What is an appropriate and reasonable means for preventing the growth of these evils? Obviously it is to preserve for residential purposes territory which, by reason of land values and topographic conditions and residential utilties, is appropriate for home uses, until the time arises when, by virtue of changes in land values or modes of transportation or the pressure of business and industry, the time shall have arrived when appropriately the residential areas should be moved elsewhere. By this means

the healthful environment of the city's homes is protected, By this means, also, the building of homes is promoted; for residential land values are stabilized and those who finance residential construction have a security for their investment which causes them to be willing to finance more home construction. The working man, with his savings, and others, with their capital available for homes, are encouraged to build homes, because the healthful home environment receives the protection of the law. No person who believes in homes and healthful home surroundings can fail to believe in the stabilized residential environment.

Municipalities, however, do not exist or thrive solely for or by homes. Places of work, as well as of habitation, are necessary; also places of recreation and civic activities, and of educational and religious activities, all located so as to furnish convenient access to and from the residential areas and to and from each other. Each residential district, for instance, requires its neighborhood business center with its grocery store, drug store, branch bank, churches, schools. Therefore, in planning the districting, these local business and civic centers require to be allotted their appropriate territory, sufficiently close to the residential district to furnish convenience of access, sufficiently large to care for all the local civic and business needs of the estimated population of the neighborhood to which they are tributary, and with transportation and other utility conveniences taken into account and with economic factor of the land value given its proper force. Consequently these local business and civic areas, though segregated somewhat from the residential areas, are placed immediately adjoining to or in the center of the residential areas.

The city needs, also, its central business, civic, recreational, educational, institutions, its banks, department stores, theatres, large hotels, office buildings, central libraries, central schools and so on. In locating these districts convenience of access to residential areas and to the manu-

facturing districts, the economic factor of the land value appropriate to these central business and civic uses and numerous other factors are taken into account. The area devoted to these central business and civic purposes must be of sufficient extent to be adequate for the whole estimated population of the city in accordance with the development of the city's entire territory in accordance with the plan.

In the case of those communities which have or need industrial areas, that is, in which industry forms an appropriate part of the uses of property within the community, adequate space will be provided in the zone plan for the industrial developments. These areas need be so located as to give the necessary industrial facilities, railroads, traffic highways and others. The economic factor of the land values appropriate to industrial development is taken into account. The area devoted to industrial use is determined so as to give ample space for full industrial development of the growing community. In the industrial district industry is legalized, thus freeing it from the injunctions and other complaints of neighboring properties and stabilizing the investments in the industrial plants; all of which is promotive of prosperity. The street system can be adjusted to the districting, reducing the evils of mixed industrial and non-industrial traffic, thus promoting public convenience.

Similar considerations and factors and adjustments govern the location of railroad terminals and other utilities, parks and other recreational spaces and the other manifold activities of urban life.

Perhaps the above is sufficient to illustrate how the zone plan is one consistent whole, with parts adjusted to each other, carefully worked out on the basis of actual facts and tendencies, including actual economic factors, so as to secure development of all the territory within the city in such a way as to promote the public health, safety, convenience, order and general welfare. Zoning reaches real public needs, the needs of the modern growing American

urban community. It seeks to meet those needs by an appropriate and reasonable method. It represents the application of foresight and intelligence to the development of the community. If the plan be well made as a result of a careful survey, it is fair and just, for in exchange of the restrictions which it places on each piece of property, it places restrictions for each piece of property, that is for the benefit of each piece of property, and protects each piece of property, as well as gives to each piece of property its share of the general health, order, convenience, and security which the whole plan brings to the community. The area of the property which the individual himself owns represents the limit of protection which the individual can provide for himself, his property or his family or his business. The community alone, by means of a zone plan, can protect him and his family and his property and his business against the unwholesome, demoralizing and depreciating effects which his neighbors or other property owners may bring upon him, his property, his family or his business by the unregulated uses to which they put their properties.

In answer to the line of attack which seeks to deride the capacity of municipal councils to legislate wisely, it is sufficient to say that our constitutional system is not and can not be based upon the assumption of the stupidity or mediocrity of our legislative assemblies. On the contrary, the principle of the separation of powers requires the assumption that the legislature has sufficient intelligence to deal wisely with public needs, leaving to the courts the function of guarding against arbitrariness, insincerity, carelessness, capriciousness and discrimination. As stated by James Bradley Thayer, an outstandingly able lawyer, in his essay entitled, "The Origin and Scope of The American Doctrine of Constitutional Law," p. 23:

> "It must indeed be studiously remembered, in judicially applying such a test as this of what a legislature may reasonably think, that virtue, sense and competent

knowledge are always to be attributed to that body. The conduct of public affairs must always go forward upon conventions and assumptions of that sort. 'It is a postulate,' said Mr. Justice Gibson 'in the theory of our government * * * that the people are wise, virtuous and competent to manage their own affairs.' *Eakin* v. *Raub*, 12 S. & R. 355. 'It would be indecent in the extreme,' said Marshall, C. J., in *Fletcher* v. *Peck*, 6 Cr. 131, 'upon a private contract between two individuals to enter into an inquiry respecting the corruption of the sovereign power of the state.' And so in a court's revision of legislative acts, as in its revision of a jury's acts, it will always assume a duly instructed body; and the question is not merely what persons may naturally do who are such as we often see, in point of fact, in our legislative bodies, persons untaught it may be, indocile, thoughtless, reckless, incompetent—but what those other persons, competent, well-instructed, sagacious, attentive, intent only on public ends, fit to represent a self-governing people, such as our theory of government assumes to be carrying on our public affairs—what such persons may reasonably think or do, what is the permissible view of them."

Zoning requires no greater foresight or skill than many other tasks with which the legislative bodies are called upon to deal in the ordinary run of their work, such as health codes, building codes, food and drug acts, utility regulation, taxation. The necessary professional, technical and expert talent and experience are available to assist. A zoning ordinance, like any other measure, is subject to amendment to meet changing situations and developments. Compared to the folly which the experience of American cities has shown to be inherent in unregulated urban development, any conscientiously made zone plan is wisdom itself.

Nor does zoning interfere with private initiative, (except, of course, in the sense that all law, including the law against homicide, affects the field of individual choice). Quite

the contrary. While full statistics have not been collected, there has been sufficient observation of the quantities of building erected in various American cities to demonstrate beyond doubt, that the zoned cities compare most favorably with unzoned cities in the quantity of building construction for homes, stores and industries. The most elementary process of a priori reasoning will disclose that the protection and stability which zoning gives to investment in buildings will increase and promote the construction of homes and stores and industrial plants. That is one of its purposes and a purpose which it is certain to accomplish. In a book published in 1923 in Cleveland entitled, "City Growth and Values," with the express endorsement of The National Association of Real Estate Boards and written by Stanley L. McMichael, formerly secretary of the Cleveland Real Estate Board and active in the real estate business, and Robert F. Bingham, contains a chapter on zoning, which contains the following passages:

> "In principle the advisability of zoning of cities can scarcely be questioned. Different classes of business and industries are segregated to districts adapted to their needs. Apartments and double houses are alloted to other territories while areas for single houses are always provided. The desirability of zoning laws in suburbs of large cities seems to be proven by the experience of many home communities where it has been tried. Retail business, manufacturing and nuisances are not allowed to creep into residential districts, destroying home values and undermining the elements of permanency and exclusiveness, which make residential districts desirable. * * * Insofar as this discussion is concerned the two questions of interest are:
>
> Does zoning help or hinder a city's growth?
>
> Does zoning increase or lower real estate values?
>
> The first question may be answered by the statement that the growth of those cities in which zoning has been

effective has not been, apparently, checked in any degree. The right of a city to place certain restrictive measures upon the privileges of owners to use their property is one which public policy should, to a great extent, control. If promiscuous growth is detrimental and orderly growth desirable, and a zoning law accomplishes the latter object, then it seems that zoning, properly applied, would be beneficial rather than detrimental to any growing community. Selfishness on the part of a property owner who is determined to use his land for whatever purpose he chooses, should not prevent the accomplishment of a zoning plan, if the general interest of the community is thereby advanced. In the long run he is likely to fare quite as well under a zoning law and realize just as much from his property. * * *

With reference to the problem as to whether zoning raises or lowers real estate values, it is difficult to believe that such a law, in its general application, can do other than raise values throughout an entire community, although in specific instances it may curtail the ambitions of property owners who hold lots near or in restricted sections who wish to use their land for a widely different purpose from that of the general neighborhood. Public welfare is paramount and the wishes of a few individuals to realize more from the sale or use of their properties for uses foreign to the character of the neighborhood should not interfere with the general application of that principle.

It is significant that in cities where zoning laws have been made effective there has been great real estate activity in certain sections. Home neighborhoods which had no protection from business encroachment have taken a sudden spurt and have built up rapidly as soon as it was apparent that only residences were to be allowed therein. Likewise, as soon as certain streets were designated as business thoroughfares thus creating a limited amount of business property to be allotted to each section of the city such streets were bound to become, sooner or later, important retail arteries, restricted permanently for that use."

There is no tenable political philosophy, however much it may stress the virtues of private and warn against public action, but admits the need of public action when the nature of the problem is such that private action can not cope with it; and as we have seen, the protections which zoning afford in the modern urban community are not within the power of the individual (with few exceptions) to obtain for himself, his family, his business, his industry. Consequently, the protection afforded by the community frees his individual initiative to undertake the things that do lie within his power. The private land and building development of cities would be self-destructive, if the community did not furnish health, safety, convenience and moral facilities and regulation. The Constitution of the United States, certainly, has not incorporated into itself any such political philosophy as deprives us of the community's help in warding off or reducing those great impairments of health, convenience, safety, morals, and prosperity which both experience and the social sciences show to result inevitably from unregulated urban development.

Enough has been stated to indicate that zoning meets actual public needs growing out of modern American urban conditions, that its purpose is to promote the health, safety, convenience, order, prosperity and welfare of urban communities, that it is an intelligent, reasonable means of promoting these goods. In the course of the zoning movement, there has been gathered a large mass of testimony of qualified persons upon the relationship of zoning to the advancement of the public health, convenience, safety, morals, prosperity and welfare. Public health experts, such as health officers of various cities, academies of medicine, practicing physicians, sanitary engineers, have testified that by means of districting, conditions can be produced in both residential and non-residential districts which will promote the public health and reduce the evils of unregulated urban growth. Experts on convenience, such as heads

of traffic police departments and street traffic experts, have testified to the reduction or avoidance of congestion which will be produced by zoning. Safety experts, such as chiefs of fire and police departments, accident insurance actuaries, experts of fire prevention bureaus, have testified to the increase of public safety which will be brought about by means of traffic segregation and reduction of congestion resulting from zoning. Building association authorities, heads of mortgage companies, life insurance companies and other financial institutions, have testified to the promotion of home building that will be effected by zoning. Judges of juvenile courts and probation officers have testified to the reduction of crime and juvenile delinquency which will be afforded by the protection of residential areas and the prevention of the blighted districts. Bankers have testified to the promotion of public prosperity by the protection afforded to investments in building developments. City engineers have testified to the beneficial effects of zoning on public convenience by means of the better street and transportation systems which can be afforded in the zoned community. For years the National Housing Association has devoted a considerable percentage of its programs and energies to promoting zoning as an essential factor in the solution of the housing problem. The United States Department of Commerce, as a part of its program for improving housing conditions in this country, has created a zoning bureau, which has distributed model zoning enabling statutes similar to the Ohio law and literature promotive of zoning. Engineering colleges have established courses to train up the necessary technical and professional talent.

In addition to the numerous books by students or practitioners of city planning, many references to periodicals, city plan reports and legislative hearings could be supplied. As an appendix to this brief, we have selected a few illustrative documents, namely: Paper on "Zoning and Health," by George C. Whipple, Professor of Sanitary

Engineering of Harvard University, read at the meeting of the City Planning Division of the American Society of Civil Engineers at Detroit, Michigan, in 1924. (Appendix, page 63.) Professor Whipple was probably the leading sanitary engineer in the United States and one of our leading authorities on public health. His essay will be found interesting and convincing. It demonstrates beyond any question that zoning has a very substantial relation to the promotion of public health in urban communities. Also:

On relation of zoning to public health:

Statement of Dr. William H. Peters, Health Commissioner of Cincinnati, to City Council of Cincinnati. (Appendix, page 77.)

Statement of David I. Wolfstein, a leading neurologist of Cincinnati, to City Council of Cincinnati. (Appendix, page 79.)

Report to City Council of Cincinnati of Committee on Public Health and Social Service of the Cincinnati Academy of Medicine. (Appendix, page 82.)

Report to City Council of Cincinnati of the Public Health Federation of Cincinnati. (Appendix, page 86.)

Extracts from Statement of Dr. John Dill Robertson, Commissioner of Health of the City of Chicago. (Appendix, page 91.)

Extracts from Report of New York City Commission on Building Districts and Restrictions on Effects of Congestion. (Appendix, page 92.)

Extracts from Statements of Dr. William A. Evans, Health Commissioner of Chicago, published in "Studies on Building Height Limitations," by Chicago Real Estate Board. (Appendix, page 94.)

Extracts from Statement of Dr. M. A. Bliss, a leading neurologist of St. Louis, published in "Zone Plan," by City Planning Commission (p. 62), 1919. (Appendix, page 95.)

On relation to public morals:

Statement of Hon. C. W. Hoffman, Judge of Juvenile Court. (Appendix, page 96.)

On relation to public convenience and safety:

Extracts from Report of Committee on City Planning and Zoning of National Street and Highway Safety Conference, 1924, called by Secretary Hoover. (Appendix, page 97.)

Extracts from the Conclusions adopted by said Conference. (Appendix, page 98.)

Extracts from "Influences of Zoning on the Design of Transportation Services," by J. Rowland Bibbins, a leading engineer of Washington, D. C., before American Society of Civil Engineers. (Appendix, page 100.)

Extracts from "Some Aspects of the Automobile Industry," by Alvan Macauley, President of Packard Motor Company. (Appendix, page 101.)

Extracts from "City Planning as a Permanent Solution of the Traffic Problem," by Morris Knowles, a leading engineer of Pittsburgh. (Appendix, page 102.)

Extracts from "The City, Its Past and Its Future," by Raymond Unwin of the British Ministry of Health." (Appendix, page 104.)

Extracts from Memorandum on "Zoning in Built-Up Areas," prepared for London County Council by British Town Planning Institute. (Appendix, page 105.)

On relation to public safety:

Statement of Edmund Dwight, from New York, Manager of The Employers' Liability Insurance Corporation, on relation of zoning to safety on streets. (Appendix, page 106.)

Statement of John Kenlon, Chief of Fire Department of New York, on effects of height and bulk of buildings on fire hazards. (Appendix, page 107.)

From 1925 Fire Prevention Year Book, issued by Baltimore Underwriters and National Agent. (Appendix, page 108.)

On relation to housing, living conditions, recreation, general welfare and prosperity:

Extracts from "How Zoning Prevents Blighted Districts," by Edward M. Bassett, member of Department

of Commerce Advisory Committee. (Appendix, page 112.)

Leaflet on "City Zoning is Sound Business," by John Ihlder, Civic Department, Department of U. S. Chamber of Commerce. (Appendix, page 113.)

Statement by Bleecker Marquette, Executive Secretary of Better Housing League of Cincinnati. (Appendix, page 118.)

Extract from Statement of Raymond V. Ingersoll, Park Commissioner of New York. (Appendix, page 125.)

Extract from Statement of Clarence H. Kelsey, President of The Title Guarantee and Trust Company of New York. (Appendix, page 126.)

Extracts from article of George S. Edie, Vice-President of Westchester Trust Company of Yonkers, N. Y., entitled, "What the Banker Thinks of Zoning." (Appendix, page 127.)

Leaflet entitled, "Why Zone Our Town?" by John Ihlder, Manager of the Civic Development Department of the Chamber of Commerce of the United States. (Appendix, page 130.)

Extracts from "A Zoning Primer," issued by The Advisory Committee on Zoning of the United States Department of Commerce. (Appendix, page 133.)

Passages from "Elements of Land Economics," by Richard T. Ely and Edward W. Morehouse, Director of and Instructor in The Institute for Research in Land Economics and Public Utilities in the University of Wisconsin. (Appendix, page 135.)

These documents show convincingly that the nature of modern city life is such that with zoning general health is bound to be promoted; that without zoning the traffic problem becomes incurable, and with zoning it becomes, at least, subject to some effective control; that without zoning the safety of residential districts is lessened, with zoning that safety is promoted; that without zoning the risks of the depreciation of living conditions in residential neighborhoods are such that development of healthful housing conditions is retarded, whereas with zoning that development is promoted; that zoning stabilizes

land values and protects land in all portions of the community for the best uses of the land and that it protects and increases the aggregate prosperity represented by land values. Without zoning the growth of blighted districts and slum districts is unavoidable, and these in turn bring juvenile delinquency and vice due to deteriorated environment. With zoning, residential districts are protected against deterioration until appropriately needed for the progress of business and industrial growth.

In the light of even a slight or casual analysis of modern conditions of urban development, and in the light of the expressions of opinions by qualified students of the problems of public health, convenience, safety, morals and welfare, it is utterly impossible to find any tenable ground for any claim that, in the opinion of careful, honest, reasonable and intelligent legislators, zoning has not a substantial relation to or does not promote the public health, the public safety, public convenience and welfare and morals.

EXPRESSIONS OF COURTS UPON THE RELATIONSHIP OF ZONING TO THE PUBLIC HEALTH, SAFETY AND OTHER PUBLIC BENEFITS WITHIN THE SCOPE OF THE POLICE POWER

The courts which have passed upon zoning cases have plainly seen some, at least, of these phases of the relationship of zoning to the promotion of public health, safety and other public benefits which fall within the general classifications of the scope of the police power, and by way of illustration we give some quotations from the opinions of the courts which illustrate the judicial recognition of these relationships.

State, ex rel. Civello and others, v. *New Orleans*, 154 La. 271, 282, was a group of six cases, all on the New Orleans zoning ordinance, all involving the residential district regulations and arising out of the exclusions, respectively, of a grocery store, a fruit stand, an oyster counter, a filling sta-

tion and an ice factory. The group, therefore, involved every type of non-residential use, both business and industrial, with varying degrees of offensiveness or inoffensiveness. The state constitution expressly permitted zoning, so that the court's discussion was concerned with the federal constitution alone. The court upheld the ordinance in every one of the cases. In the course of its opinion the court said:

> "It is not necessary, for the validity of the ordinance in question, that we should deem the ordinances justified by considerations of public health, safety, comfort, or the general welfare. It is sufficient that the municipal council could reasonably have had such considerations in mind. If such considerations could have justified the ordinances, we must assume that they did justify them.
>
> "The attorneys for appellant have suggested considerations that might well have prompted the enactment of the ordinances in question. In the first place, the exclusion of business establishments from residence districts might enable the municipal government to give better police protection. Patrolmen's beats are larger, and therefore fewer, in residence neighborhoods than in business neighborhoods. A place of business in a resident neighborhood furnishes an excuse for any criminal to go into the neighborhood, where, otherwise, a stranger would be under the ban of suspicion. Besides, open shops invite loiterers and idlers to congregate; and the places of such congregation need police protection. In the second place, the zoning of a city into residence districts and commercial districts is a matter of economy in street paving. Heavy trucks, hauling freight to and from places of business in residence districts, require the city to maintain the same costly pavement in such districts that is required for business districts; whereas, in the residence districts, where business establishments are excluded, a cheaper pavement serves the purpose. It is pointed out, too, that the fire hazard is greater in the neighborhood of business establishments than it is in residence districts. A better and more expensive fire department—better equipment and younger and

stronger men—are needed in the business centers, where the buildings are taller, than in the residence districts.

"Aside from considerations of economic administration, in the matter of police and fire protection, street paving, etc., any business establishment is likely to be a genuine nuisance in a neighborhood of residences. Places of business are noisy; they are apt to be disturbing at night; some of them are malodorous; some are unsightly; some are apt to breed rats, mice, roaches, flies, ants, etc. Property brings a better price in a residence neighborhood where business establishments are excluded than in a residence neighborhood where an objectionable business is apt to be established at any time.

"If the municipal council deemed any of the reasons which have been suggested, or any other substantial reason, a sufficient reason for adopting the ordinance in question, it is not the province of the courts to take issue with the council. We have nothing to do with the question of the wisdom or good policy of municipal ordinances. If they are not satisfying to a majority of the citizens, their recourse is to the ballot—not the courts."

State, ex rel. Carter, v. *Harper, Building Inspector of Milwaukee,* 182 Wis. 148, in which the Supreme Court of Wisconsin sustained the Milwaukee zoning ordinance, was an action in mandamus. The relator had a dairy and milk pasteurizing plant and desired to enlarge same. The proposed addition would violate the zoning ordinance and a permit was refused. The court upheld the ordinance. In the course of its opinion, p. 153, the court said:

"It is thoroughly established in this country that the rights preserved to the individual by these constitutional provisions are held in subordination to the rights of society. Although one owns property, he may not do with it as he pleases, any more than he may act in accordance with his personal desires. As the interest of society justifies restraints upon individual conduct, so also does it justify restraints upon the use to which

property may be devoted. It was not intended by these constitutional provisions to so far protect the individual in the use of his property as to enable him to use it to the detriment of society. By thus protecting individual rights, society did not part with the power to protect itself to promote its general well-being. Where the interest of the individual conflicts with the interest of society, such individual interest is subordinated to the general welfare. If in the prosecution of governmental functions it becomes necessary to take private property, compensation must be made. But incidental damages to property resulting from governmental activities, or laws passed in the promotion of the public welfare, is not considerad a taking of the property for which compensation must be made. * * *

"Except in cases of nuisance, there is a reciprocity of benefits resulting from limitations imposed upon the use of property by general laws. He who is limited in the use of his property finds compensation therefor in the benefits accruing to him from the like limitations imposed upon his neighbor. * * *

"The purpose of the law is to bring about an orderly development of our cities; to establish residence districts into which business, commercial and industrial establishments shall not intrude, and to fix business districts and light industrial districts upon which heavy industrial concerns may not encroach. This is no new idea, although it has but recently taken the form of legislation. Every one who has observed the haphazard development of cities, the deterioration in the desirability of certain residential sections by the encroachment of business and industrial establishments upon and into such sections, resulting in the consequent destruction of property values and in the ultimate abandonment of such sections for residential purposes, has appreciated the desirability of regulating the growth and development of our urban communities. The home seeker shuns a section of a city devoted to industrialism and seeks a home at some distance from the business center. A common and natural instinct directs him to a section far removed from the commerce, trade and industry of the com-

munity. He does this because the home instinct craves fresh air, sunshine and well-kept lawns—home association beyond the noise of commercial marts and the dirt and smoke of industrial plants. Fresh air and sunshine adds to the happiness of the home and has a direct effect upon the well-being of the occupants. It is not uncommon to witness efforts of promoters to preserve the residential character of their additions by placing covenants in their deeds restricting the use of the property to residential purposes, and, in some instances, requiring the erection of a home according to specified standards. It can not be denied that a city systematically developed offers greater attractiveness to the home seeker than a city that is developed in a haphazard way. The one compares to the other about as a well ordered department store compares to a junk-shop. If such regulations stabilize the value of property, promote the permanency of desirable home surroundings, and if they add to the happiness and comfort of the citizens, they thereby promote the general welfare.

"When we reflect that one has always been required to so use his property as not to injure his neighbors, and that restrictions against the use of property in urban communities have increased with changing social standards, and that the luxuries of one decade become the necessities of another, can it be said that an offer to preserve various sections of a city from intrusion on the part of institutions that are offensive to and out of harmony with the use to which such sections are devoted, is unreasonable? The present standards of society prompt a revolt against such unbecoming intrusions, and they constitute such a recognized interference with the rights of the residents of such sections as to justify regulation.

"The benefits to be derived to cities adopting such regulations may be summarized as follows: They attract a desirable and assure a permanent citizenship; they foster pride in and attachment to the city; they promote happiness and contentment; they stabilize the use and value of property and promote the peace, tranquility and good order of the city. We do not hesitate to say that the attainment of these objects affords a

legitimate field for the exercise of the police power."

Opinion of the Justices of the Supreme Court of Massachusetts, 234 Mass. 597, was an advisory opinion upon a pending zoning enabling bill. The state constitution expressly authorized such legislation, so that the constitutional question was concerned solely with the federal constitution. The court in a most illuminating opinion pointed out the reasonableness and constitutionality of zoning as an exercise of police power, saying amongst other things:

"In the light of these principles declared by the Supreme Court of the United States, illumined by instances of their specific application, we are of opinion that the proposed statute can not be pronounced on its face contrary to any of the provisions of the federal constitution or its amendments. The segregation of manufacturing, commercial and mercantile business of various kinds to particular localities, when exercised with reason, may be thought to bear a rational relation to the health and safety of the community. We do not think it can be said that circumstances do not exist in connection with the ordinary operation of such kinds of business which increase the risk of fire and which renders life less secure to those living in homes in close proximity. Health and securing from injury of children and the old and feeble and otherwise less robust portion of the public well may be thought to be promoted by requiring that dwelling houses be separated from the territory devoted to trade and industry. The suppression and prevention of disorder, the extinguishment of fires and the enforcement of regulations for street traffic, and other ordinances designed rightly to promote the general welfare, may be facilitated by the establishment of zones or districts for business as distinguished from residence.

"Conversely, the actual health and safety of the community may be aided by excluding from areas devoted to residence the confusion and danger of fire, contagion and disorder, which in greater or less degree attach to the location of stores, shops and factories.

> Regular and efficient transportation of the breadwinners to and from places of labor may be expedited. Construction and repair of streets may be rendered easier and less expensive if heavy traffic is confined to specified streets by the business there carried on."

As will be noted from the list of cases given earlier in this brief, the Supreme Court of Massachusetts has now had occasion to pass upon three zoning ordinances in three litigated and contested cases and has upheld the ordinance in every case. In the case of *Building Inspector of Lowell* v. *Stoklosa*, 250 Mass. 52, involving exclusion of stores from residential zones, the court referred to its aforesaid advisory opinion, stating:

> "The reasons which now seem decisive and the supporting authorities are stated at length in the advisory opinion. It is hardly worth while to extend the bulk of our reports covering the same ground again. Without further present discussion, summarization, and amplification regarding the statement herein paraphrased, that opinion is adopted as the judgment of the court in the case at bar. It covers every constitutional phase which has been argued or which has occurred to us."

Amongst the most recent decisions is one by the Supreme Court of California rendered February 27, 1925 in *Miller* v. *Board of Public Works of Los Angeles*, 234 Pac. 381, upholding a zoning ordinance which created single-family home districts and excluded therefrom a four-family apartment building. The case is particularly pertinent in Ohio, because the authority of the California cities to enact zoning ordinances was expressly derived from the home rule provisions of the constitution of California, identical in wording with the Ohio constitutional provision, namely:

> "Any city may make and enforce within its limits all such local, police, sanitary and other regulations as are not in conflict with general laws."

Every word of the opinion is pertinent here and informative and convincing, and we are tempted to copy the opinion in full, but for the sake of brevity, we are including only the following extracts, pp. 383ff:

"• • • In short, the police power, as such, is not confined within the narrow circumscription of precedents, resting upon past conditions which do not cover and control present-day conditions obviously calling for revised regulations to promote the health, safety, morals or general welfare of the public. That is to say, as a commonwealth develops politically, economically and socially, the police power likewise develops, within reason, to meet the changed and changing conditions. What was at one time regarded as an improper exercise of the police power may now, because of changed living conditions, be recognized as a legitimate exercise of that power.

• • •

"So thoroughly has the value of zoning been demonstrated that no longer is the constitutionality of the principle open to question. The books abound with cases upholding the constitutional right to zone and sanctioning the principles upon which that right is founded. In its original and primary sense zoning is simply the division of a city into districts and the prescription and application of different regulations in each district.

• • •

"It is conceded, as indeed it must be, by the opponents of the ordinance in controversy here that it is within the police power, by zoning, to banish nuisances and 'near-nuisances,' from certain districts. It is disputed, however, that the police power may be extended by any zoning ordinance, comprehensive or otherwise, to the regulation and isolation of vocations, business enterprises and residential uses which are not intrinsically obnoxious. A perusal of the decisions in California, which have upheld the prohibition and segregation of certain businesses by means of zoning, indicates that the court has not limited the power to zone to nuisances *per se* and has held that certain business establishments, harmless in themselves, may become 'near-nuisances' because of the character of the neigh-

borhood in which they are operating. In *Ex parte Quong Wo, supra,* the court justified the exclusion of a certain type of laundry from a residential district upon the theory that a laundry is 'of such a nature that it may be confined, in the lawful exercise of the police power, within defined limits in a city.' This is tantamount to saying that whenever the recognized purposes for which the police power may be called into play are subserved either by exclusion or segregation of any business, it may be thus regulated. This is but another way of saying that any zoning regulation is a valid exercise of the police power which is necessary to subserve the ends for which the police power exists, namely, the promotion of the public health, safety, morals and general welfare. It will thus be seen that the police power as evidenced in zoning ordinances has a much wider scope than the mere suppression of the offensive uses of property (*Des Moines* v. *Manhattan Oil Co.*, 184 N. W. 823), and that it acts not only negatively but constructively and affirmatively for the promotion of the public welfare. (*Bacon* v. *Walker,* 204 U. S. 311.)

* * *

"* * * It may be safely said, we think, that it is the consensus of opinion that the regulation of the development of a city, under a comprehensive and carefully considered zoning plan, does tend to promote the general welfare of a community and there is no doubt it seems to us that the adoption and enforcement of such a plan, when fairly conceived, and equably applied, is well within the scope of the police power. The increase of our urban population makes regulation necessary. As the congestion of our cities increases, likewise do the problems of traffic control and police, fire and health protection. Comprehensive and systematic zoning aids in the successful solution of these problems and obviously tends thereby to affirmatively promote the public welfare. Decisions upon the constitutionality of comprehensive zoning are not numerous but the weight of authority upon the subject is, however, strongly in favor of the constitutionality of comprehensive zoning. * * *

"That there are reasonable minds which are of the belief that a regulation creating and establishing strictly residential districts is necessary and proper is evidenced by the passage of such ordinances in such widely varying parts of the Union as Massachusetts, Louisiana, New York, Kansas, Iowa and Wisconsin. In each of these states the problem of the validity of the establishment of a strictly residential district was before the highest court of those respective jurisdictions and in each case such ordinance was held to be within the scope of the police power.

* * *

"In addition to all that has been said in support of the constitutionality of residential zoning as part of a comprehensive plan, we think it may be safely and sensibly said that justification for residential zoning may, in the last analysis, be rested upon the protection of the civic and social values of the American home. The establishment of such districts is for the general welfare because it tends to promote and perpetuate the American home. It is axiomatic that the welfare, and indeed the very existence, of a nation depends upon the character and caliber of its citizenry. The character and quality of manhood and womanhood are in a large measure the result of home environment. The home and its intrinsic influences are the very foundation of good citizenship, and any factor contributing to the establishment of homes and the fostering of home life doubtless tends to the enhancement not only of community life but of the life of the nation as a whole.

"The establishment of single-family residence districts offers inducement not only to the wealthy but to those of moderate means to own their own homes. With ownership comes stability, the welding together of family ties and better attention to the rearing of children. With ownership comes increased interest in the promotion of public agencies, such as church and school, which have for their purpose a desired development of the moral and mental make-up of the citizenry of the country. With ownership of one's home comes recognition of the individual's responsibility for his share in the safeguarding of the welfare of the community and increased pride in personal achievement

which must come from personal participation in projects looking toward community betterment."

In *Pritz* v. *Messer*, 112 O. S. 628, 149 N. E. R. 30, 35, the Supreme Court of Ohio, in the course of its discussion, said:

"Reverting to our original consideration, we have to remind ourselves that the question is not whether the slum will certainly be eliminated by such zoning, but whether such zoning reasonably tends toward the elimination of the slum; not whether congestion of traffic and enhanced public health and improved public morals will certainly result from the enactment of such measures, but whether there is a reasonable connection between such measures and the public health, morals, and safety.

"Upon mature consideration, after two exhaustive hearings given in this case, we can not say that there is no relation between the legislation enacted and the public health, safety, and morals. It is true that the slum roots in causes deeper than the mere kind of building found therein. It is true that non-nuisance businesses might better, so far as the health of their own inhabitants is concerned, be conducted in districts where there are no apartment houses and where there is no business life. It is also true, however, that family life is promoted by the separation of families, and by their residence in districts where the open spaces, the possibility of gardening, and the freedom from the society which presses around one in a partial business and tenement district, make for health through recreation and peace of mind.

"The entrance of business blocks into a residence district tends to 'blight' the district and gradually to invite therein the hazards, both physical and moral, which exist in the sections which combine business with home life.

"We cannot say that there is no reasonable relation between the public morals and an attempt to set off for the people of a great city ample parts of the town in which they can always maintain residence districts,

unblighted by industry and by the old style of tenement. In this particular instance such tracts of this kind have been reserved as will be available for the inhabitants of Cincinnati for a hundred years to come.

"If a law regulating the air space which must be allowed in a tenement house has a reasonable relation to health, we can not say that a measure which will save considerable districts for the city in which the air space is unblocked by massed building construction has no reasonable relation to health. The mere fact that the economic factor looms largest in determining the choice of a residence does not mean that restrictions which give space and air, light, and separation to houses will not eventually shape the kind of building which is done, and benefit the public health. The laws which compelled tenement houses to install plumbing and sanitary conveniences did not do away with poverty, but they did compel builders in future building to conform to certain health standards. We can not assume that similar results will not occur from regulations such as these embodied in this zoning ordinance.

"Furthermore, we can not say that the council did not look forward to a time when by the natural functioning of the law of supply and demand the tide of population would turn in the direction where light, air space, and health can be secured as normal living conditions, and where by these restrictions and by public demand the builders would be compelled to build homes which would make for the maintenance rather than for the deterioration of the American family.

"This problem must be viewed from the standpoint of coming generations. Regarded from the limited outlook of the immediate present, it is easy to claim with some degree of cogency that there is no relation between these measures and the public health, safety, or morals. Taking a long view into the future, however, and looking back into the past, to remind ourselves what detriment the unrestricted congestion in city life, both of traffic and housing, has already done the public welfare, we do see a real relation between the substantial material welfare of the community and this effort of the city to plan its physical life."

A still more recent decision is that rendered in November, 1925 by the Court of Appeals of New York in the case of *Matter of Wulfsohn* v. *Inspector of Buildings of the City of Mt. Vernon*, 241 N. Y. 288, 150 N. E. R. 120. It was concerned with the height, setback and rear yard regulations of an apartment building in a residence A district. The court discussed chiefly the right to exclude apartment houses altogether from single-family districts, deducing from the right of such exclusion the validity of the lesser actual restrictions of the Mt. Vernon ordinance. The opinion, written by Chief Judge Hiscock, and concurred in unanimously by all the members of the court, contains the following passages:

> "In support of such a regulation we think the zoning authorities could assume and the courts below could have found that the orderly and advantageous development of the city of Mount Vernon and the welfare of its citizens would be promoted by fundamental division of the city into districts devoted respectively to business and residential purposes under which its dwellers might establish homes in the latter districts where they would be free from disturbing conditions and risks and deprivation of health conditions such as light and air ordinarily incident to congested business districts; that in the residential districts of Mount Vernon municipal facilities for sewage and water were liable to be overtaxed if the erection of large apartment houses was permitted; that through the construction of apartment houses whereby there would be gathered a large number of people in the space ordinarily occupied by a single family there would result a congestion of population increasing the dangers of traffic, especially to children, and multiplying the chances that through the carelessness of some individual fire and conflagration might be started or disease communicated and epidemics set on their way; that the advantages and value of property devoted to private residences would be impaired. If we are right that such facts could be found or assumed we do not think that a court could say as matter of law that a zoning regulation

excluding large apartment houses could not be justified. There would be no object in creating a residential district unless there were to be secured to those dwelling therein the advantages and that immunity from risks and danger which would ordinarily be considered as the main benefits of such residences.

"Of course, zoning regulations are an exercise of the police power, and as we approach the decision of this question we must realize that the application of the police power has been greatly extended during a comparatively recent period and that while the fundamental rule must be observed that there is some evil existent or reasonably to be apprehended which the police power may be invoked to prevent and that the remedy proposed must be generally adapted to the purpose, the limit upon conditions held to come within this rule has been greatly enlarged. It is not limited to regulations designed to promote public health, public safety or to the suppression of what is offensive, disorderly or unsanitary but extends to so dealing with conditions which exist as to bring out of them the greatest welfare of the people by promoting public convenience or general prosperity. *Bacon* v. *Walker*, 204 U. S. 311, 17-18. Being designed to promote public convenience or general prosperity as well as public health, public morals or public safety the validity of a police regulation must depend upon the circumstances of each case and the character of the regulation for the purpose of determining whether it is arbitrary or reasonable and whether really designed to accomplish a legitimate public purpose. *C. B. & Q. Ry.* v. *Drainage Commrs.*, 200 U. S. 561. The field of regulation constantly widens into new regions. The question (of regulation) in a broad and definite sense is one of degree. Changing economic conditions, temporary or permanent, may make necessary or beneficial the right of public regulation. *People, ex rel. Durham Realty Corp.*, v. *Fetra*, 230 N. Y. 429; aff'd in principle—257 U. S. 665. While the validity of police regulation certainly is not to be rested simply upon popular opinion it has been said that it has been 'put forth in aid of what is sanctioned by usage or held by the prevailing morality or strong and preponderant

opinion to be greatly and immediately necessary to the public welfare.' *Noble State Bank* v. *Haskell*, 219 U. S. 104.

"Acting in accordance with these general principles courts on the whole have been consistently and sensibly progressive in adjusting the use of land in thickly populated districts to the necessities and conditions created by congested and complex conditions by upholding as a constitutional exercise of the police power zoning ordinances passed under state authority to regulate the use of land in urban districts. What was once a matter of voluntary submissions to restrictive covenants in grants has become a matter of compulsory obedience to ordinances having the force of statutes. It has come about that 40 states have passed laws authorizing zoning ordinances which in one form and another had, in January, 1925, been adopted by 320 municipalities. Commencing, generally speaking, where restrictive covenants commonly stopped with the exclusion from residential districts of factories and business buildings, they have developed until as in the present case they create residential districts in a large sense limited to private dwellings as distinguished from hotels and apartment houses. Thus far these regulations have been sustained as being conducive to public health, safety and morals. With few exceptions courts have not been ready to say that they might be sustained merely because they preserved the aesthetic appearance of a private residential district and prevented its appearance from being blotched by the erection of some incongruous structure whereby the value of all neighboring property was impaired. The Supreme Court of the United States has, however, gone so far as to approve in substance the views of the Massachusetts Supreme Court that aesthetic considerations might be considered as auxiliary of what thus far have been regarded by the courts as more effective and sufficient reasons. *Welch* v. *Swasey*, 193 Mass. 364; *Welch* v. *Swasey*, 214 U. S. 91, 108.

"In attempting to apply all of these principles to the present case we deem it unnecessary to consider the proposition that zoning authorities may establish residential districts. This court has so definitely ap-

proved that proposition that we make take its decision as a starting point in the consideration of the further questions now before us. *Lincoln Trust Co.* v. *Williams Bldg. Corp.*, 229 N. Y. 313.

"Having the power as we thus assume to establish residential districts it seems to us that the zoning authorities of Mount Vernon had the power to make such classification really effective by adopting such regulations as would be conducive to the welfare, health and safety of those desiring to live in such a district and enjoy the benefits thereof as we ordinarily conceive of them. Outside of large cities where more or less congestion is inevitable, we ordinarily think of a residential district as devoted to private homes rather than to commercial buildings. Such was apparently the character of the territory here involved before the zoning regulations were adopted. The primary purpose of such a district is safe, healthful and comfortable family life rather than the development of commercial instincts and the pursuit of pecuniary profits. Such life goes on by night as well as by day. It includes children as well as people of mature judgment and is housed in buildings which are not ordinarily of that character most designed to resist conflagrations and where fire protection is scantier and less effective than it would be elsewhere. *Welch* v. *Swasey*, 214 U. S. 91, 107.

"It seems to us quite in accordance with the decisions and principles to which we have referred that zoning authorities should have the right in a residential district to promote these purposes and to protect the people desiring to enjoy these conditions by excluding big apartment houses like the one proposed by appellant whereby the congestion and dangers of traffic on streets where children might be, and the dangers of disease and fires would be increased, to say nothing of other things such as the destruction of the character of the district as a residential one and the impairment in value of property already devoted to private residences.

* * * * * *

"It is not an effective argument against these ordinances, if otherwise valid, that they limit the use and may depreciate the value of appellant's premises.

That frequently is the effect of police regulation and the general welfare of the public is superior in importance to the pecuniary profits of the individual."

CONCLUSION

According to the principles of constitutional law practice, legislation is presumed to be valid, and he who attacks the validity has the burden of proof. This is also true of municipal legislation in Ohio. But waiving aside this question of who has the burden, we believe that we have demonstrated beyond question, that by virtue of the great weight of authority of judicial decisions in zoning cases, that by virtue of the analogies of other modes of regulating property in the interest of the public health, safety, morals, convenience, order, prosperity and welfare, by virtue of even a casual analysis of the problems which need to be dealt with by legislation to reduce the evil effects of unregulated building development in urban communities in America, by virtue of the opinions of those qualified on the health, safety, convenience and welfare problems of urban communities, by virtue of the recognition by the courts of the relationship of district or zone regulation to the promotion of public health and other benefits within the police power, zoning is constitutional and falls well within the constitutional scope of the powers of Ohio cities and villages.

Respectfully submitted,

ALFRED BETTMAN,

Counsel for The National Conference on City Planning, The Ohio State Conference on City Planning, The National Housing Association, The Massachusetts Federation of Town Planning Boards, Amici Curiae.

APPENDIX

Zoning and Health

By GEORGE C. WHIPPLE, M. Am. Soc. C. E.

Prof. of Sanitary Eng., Harvard Univ., Cambridge, Mass.

Presented at the meeting of the City Planning Division of the American Society of Civil Engineers, Detroit, Mich., October 24, 1924.

INTRODUCTION

The word "zoning" is now commonly used to designate the governmental process of dividing municipalities into districts and imposing on private property in such districts, uniform building restrictions relating to height, bulk, and use. The New York Committee which set the pace in this matter was called by the descriptive title, "Committee on Building Districts and Restrictions," but the shorter expression seems to be preferred by the American public, even if the districts established bear little resemblance to mathematical zones.

It was natural and fitting that zoning should begin in New York, N. Y., because this largest of cities was suffering most from congestion, indiscriminate building, and the encroachment of private on public interests. The conditions were prejudiciously affecting the welfare of the community as a whole, working damage to property investments and personal injury to individuals. Zoning came to New York as a necessary act of salvation; but it is a measure the need of which has since become recognized in scores of American cities, witnessed by the two hundred and more zoning ordinances which have been passed during the last ten years. So general has zoning become that one may wonder why it is necessary at this late date to consider the fundamental reasons for it or seek to justify its constitutionality. It is not realized, perhaps, that court decisions resulting from mandamus proceedings and involving the question of constitutionality are relatively few in number and not altogether in agreement. The legal status of zoning can not yet be regarded as fixed, although each year appears to strengthen its standing. It is worth while, therefore, to

consider some of the basic ideas which underlie the restriction of buildings by districts and without which zoning laws would be unsound.

In the typical zoning ordinance, provision is made for several height districts in each of which a limit is placed on the height to which buildings, or parts thereof, may be carried on established street lines, with provision for greater heights for parts of buildings back of certain established planes. From two to five or more height-districts are commonly provided, with uniform regulation for each district, the street width being often used as the basis of the mathematical statement of height permitted. Bulk or area districts are covered by regulations which fix the percentage of the lot which may be occupied and the location and extent of open spaces in front of and around the building. Use districts differ according to the permitted or prohibited use of buildings or land, and are described by the words, "residential," "business," or "industrial." The various districts vary greatly in size and shape, and the three kinds of districts are rarely co-extensive; hence, in any zoned city, there are many combinations. As the movement progresses, there seems to be a tendency to simplify the law by making residence, business, and industrial areas the primary basis of classification, and subdividing each of these on the basis of height and bulk.

It is important that there be uniformity of regulation for each district, for without this the principle of equality before the law would be violated. It is important, also, that the zoning plan be a comprehensive one for the entire city.

Zoning is an essential part of city planning. Generally speaking, about three-fourths of the land area of a city is privately owned and subdivided into blocks and lots; the other fourth, devoted to streets, parks, etc., is owned by the municipality or dedicated to public uses. Again, speaking in generalities, municipal control of the public land is obtained through the governmental power of eminent domain, while municipal control over the use of private property is dependent on the exercise of police power. With rare exceptions, eminent domain has nothing to do with zoning; there is no question of compensation to the owner; no question of the necessity of acquiring private property for public use. The constitutionality of zoning depends on whether the restrictions proposed are justifiable under a

reasonable use of the police power, a common-law principle which, although undefined and undefinable, finds its backing in certain well recognized needs of the community. Used conservatively, the police power has to do only with injury to health, safety, or morals; used more liberally, it covers, in addition, such matters as the public order and convenience and even extends to what are called the amenities of life. With the increasing concentration of people in cities, there is good reason for the widening scope of the police power which has been witnessed during recent years.

Zoning is advantageous to a city in many ways. It tends to stabilize real estate values, to promote orderly building, to enhance beauty, and to develop local self-consciousness and civic responbility on the part of the people. Yet, in the face of these benefits, zoning is likely to be declared by the highest courts to be unconstitutional if it can not be justified under the police power; and although instances may be cited where the police power has been exercised in a constructive manner to promote the general welfare of a community, its preponderant use has been to prevent injury to health, safety, morals, and—the lawyers like to add—"the like." The purpose of this paper is to outline the scientific evidence bearing on the relation of zoning to health.

Health.—At the outset, it is important to grasp the full meaning of the word "health," to realize that it is more than the absence of disease; that it has a positive quality; and that it has to do with the mind as well as the physical body. It is useful to keep in mind the derivation of the word from the Anglo-Saxon "haelth," which implied wholeness. If one were to venture a definition, it might be said that health is "that state or quality of life in which the body is sound, the various organs function naturally and the whole organism responds adequately to its environment."

In a popular sense, public health means the general or collective health of the community. In an administrative or legal sense, it means the health of the community as influenced by factors which affect a considerable number of people in some connected way. The police power is not limited to public health used in this restricted sense, but deals with health. Attention should be called to the fact that the adjective public restricts the word health instead of amplifying it.

Although it is difficult to define normal health, it is recognized that some factors tend to injure it, or lower its state, whereas other factors tend to promote it, or raise its state above the normal. Normal health presupposes a normal environment, the two ideas being complementary and inseparable. It is the purpose of zoning as it is that of sanitation, to secure and maintain an environment in which normal human beings can lead normally healthful lives.

In an address[1] on "Sanitation—Its Relation to Health and Life," before the Sanitary Engineering Division of the Society, the writer has already pointed out that the principal injurious factors to health are infections, poisons, and accidents. The physiological factors, air, food, water, light, temperature and humidity, sleep, exercise, clothing, and shelter, and the sensatory factors, smell, taste, sound, sight, and touch, are either health-promotive or health-injurious, according to their nature. This classification, indefinite though it is, serves to steady one's idea when considering the complicated relations between health and environment.

Quantitatively, health can be measured only imperfectly and in part. Individual health may be expressed in terms of growth, height, weight, and other biometrical units. Community health on its negative side may be measured in terms of death rates and sickness rates, general and specific, for different classes, age groups, and particular diseases. No adequate methods of measuring community health, on its positive side, have yet been developed; perhaps they will come in time.

To a large extent, therefore, the subject under discussion is beyond the range of statistics; and reliance must be placed on accumulated experience and the opinions of competent authorities, rather than on logical scientific demonstration, although, in certain parts of the problem, scientific proof is available.

Indoor and Outdoor Conditions.—The relation between health and indoor life has long been recognized. Laws and ordinances covering the size and ventilation of sleeping rooms, drainage, dark hallways, cellars, windows, refuse disposal, and many other items, are common. Detailed building and plumbing codes, housing laws, tenement house laws and the like are in force in most cities. It is well

[1] *Proceedings*, Am. Soc. C. E., April, 1924, Papers and Discussions, p. 490.

recognized by the courts that insanitary indoor conditions are prejudicial to the health of the people. It is coming to be recognized that, in important ways, indor conditions are dependent on and controlled by outdoor environment. The light that enters a room through a window depends on the light that falls on the outer wall of the building, and this is affected by the position, height, and bulk of neighboring buildings. The quantity of air that enters a building is influenced, sometimes very greatly, by neighboring buildings, and the quality of the air is affected by what is going on in the neighborhood. In fact, nearly all the physiological and sensatory factors related to health may be used to illustrate the close connection between indoors and outdoors.

Placing restrictions on the height and bulk of buildings is virtually public control of the space outside the buildings. It prevents private owners from monopolizing light and air to which all people should have a common right. In some respects, time-honored conceptions in regard to property rights are faulty. It is assumed that lots of land privately owned are bounded by vertical planes which extend upward and downward without limit, unmindful of the fact that, in this latitude at least, the sun's rays fall slantingly on the earth and the winds blow horizontally. Building without limit on one's land, therefore, may interfere with a neighbor's use of his land and the enjoyment of certain bounties of Nature, thereby doing injury to his health and comfort. From this point of view, restriction on height and bulk appears to be justifiable.

Conversely, the indoor use of property may affect outdoor conditions. Buildings of great height and bulk lead to such indoor massings of people that not only are the means of ingress and egress provided with difficulty, but means of conveyance and the streets themselves become so congested that safety, health, and morals are jeopardized. Congestion may extend even to the substructures of the streets—the water mains, sewers, gas pipes, and electric light and telephone wires. Municipal governments, responsible for the streets and their use, can not adequately perform their duties in the face of excessive developments of private property abutting on the streets. The indoor use of property, whether for residential, business, or industrail purposes, controls the character of the vehicular traffic and the character of the pavements required for it; it

affects the cleanliness of the streets, as well as dust, odors, sights, and noises. The abutters and the public have common interests in the streets and public lands, which can be protected only by placing restrictions on the use of private property.

Phases of Life.—One of the primary purposes of zoning is to safeguard the conditions which affect three primary phases of life, namely, work, recreation, and sleep, each of which occupy about one-third of the adult's normal day. Adequate provision for work, sleep, and recreation (using this word in a sense broad enough to include rest and nourishment and not merely as a synonym for pleasure), is essential to health. The necessary conditions are not the same for all three, although for sleep and recreation they are not dissimlar. The keynote of work is efficiency; of sleep, quiet; of recreation, cheerfulness.

In infancy and old age, and with the sick of all ages, the conditions which favor sleep are especially important. During childhood and youth, when bodies are growing and minds are developing, the recreation phase controls. In middle age, the work phase predominates. To a large extent, the three phases of life are controlled by the sun—the day is for work, the night for sleep, and the morning and evening for recreation; but to an increasing extent, life in cities ignores the clock. Factories run continuously, night work is required in many ways, transportation never ceases. Those who work at night must sleep by day. What was once a "time" separation is fast becoming a "place" separation. To obtain normal, healthful conditions in cities, home life must be separated in place from work life, and, in order that permanency be given to this separation, a certain amount of governmental control of private property is essential. This is the basic principle which underlies building restriction by districts.

In making this place separation, it is necessary to take into account various practical considerations. Many people like to live within walking distance of their work, and the daily walk, if not too long, is one of the positive factors of health. Home life requires that the grocer, the butcher, the baker, and other neighborhood conveniences be not too far away. Certain associated businesses gain in efficiency by segregation. Some kinds of manufacturing involve processes which are noisy or which give rise to odors, bearable during work, but offensive from the stand-

point of home life. Cities which have been built under the doctrine of *laissez faire*, can not be rebuilt in a day. These and similar facts have led to the establishment of zones of the most irregular shape, size, and position, zones not always topographically logical, but the best that can be established under the circumstances. The need of zoning is the best argument in favor of city planning and regional planning.

The primary object of zoning, therefore, is (1) to protect the basic phases of life against injury by providing adequate place-separation of residence, business, and industry; and (2) to prevent the private monopoly of natural light and air, necessary to health, by restricting the height and bulk of buildings in ways appropriate to their neighborhood.

With these general principles in mind, various factors involved in the problem, namely, light, air, noise, odors, congestion, and the like, will now be discussed in some detail.

Light.—The rays of the sun bring light and heat to the earth and both are necessary to man's existence. Dr. Haven Emerson, paraphrasing Michelet, has tersely epitomized human experience by saying, "You can not raise babies any more without light and air than you can raise plants." Although admittedly mysterious in its action, sunlight is of positive biological benefit and this is true even of diffused sunlight, or daylight. Its action is both physiological and psychological. It is a natural stimulant to the skin and the nervous system. It aids naturally in providing resistance to the body against diseases like tuberculosis. It has recently been learned that it plays an important part in the cure and prevention of rickets in children. It helps to cure tuberculosis of the bones. It provides illumination, the absence of which hampers activities of mind and body and induces eye-strain with its attendant damages and discomforts. It provides warmth in winter. Although science has not yet fathomed the influence of the sun's rays (and this influence may perhaps include the rays beyond those of the spectrum of light), it is a matter of accumulated experience that sunlit rooms are not only cheerful, but healthful, and that dark rooms are gloomy and unhealthful.

There are likewise many indirect benefits. Sunlight is a powerful disinfectant, rapidly destroying bacteria ex-

posed to it, whether floating in the air or resting on pavements, floors, or walls. Unequal heating of the air induces convection currents and beneficial air movements. Places not exposed to sunlight are more likely than others to contain stagnant air. Air movements have an important influence in regulating the temperature of the body. Stagnant air around the body tends to increase in humidity, thereby making a person feel warmer in summer because of lessened evaporation and cooler in winter because of greater conduction of heat by the moist air.

Sunlight tends to reduce the relative humidity of the air by increasing its temperature and its ability to hold water vapor. By removing moisture from dust particles in the air, it tends to lessen fogs. It tends to dry pools of water which otherwise might become breeding spots for mosquitoes.

Sunlight markedly influences vegetation. Trees, shrubs, and grass are natural automatic regulators of heat conditions. During the summer, trees produce desirable shade, yet, in winter, they do not obstruct the sunlight. In this respect, the shade of trees differs from the shade of buildings. Vegetation also provides a natural chemical balance. Human beings, as well as all animals, inhale oxygen and exhale carbonic acid; whereas plants in sunlight take in carbonic acid and give out oxygen. Vegetation can not thrive without sunlight and water. It is a matter of history that the increasing height of buildings and the increasing extent of impermeable area, due to buildings and pavements, drives out trees, shrubs and grass. The effect of vegetation is local. Trees and grass concentrated in parks can not take the place of vegetation on streets and individual house lots.

Daylight, which means indirect lighting from the sun, by reflection from the sky, the clouds, and various surfaces, does all these things, but to a less degree than direct sunlight. Sunlight may even be too great, as every one knows, especially during the summer and in the tropics. Daylight has an important economic value. It is not only beneficial physiologically and psychologically, but increases the productiveness of labor and reduces the necessity of artificial illumination. Artificial illumination involves expense and must be arranged with great care in order to be effective and not cause injury to the eyesight. Lighting with oil or gas tends to vitiate the air by increasing the carbonic

acid and moisture, and even by increasing the poisonous carbonic oxide.

Artificial lighting also increases fire risks. Lack of proper exterior lighting increases the window space required and this, in turn, increases the heat loss in buildings in winter.

There are abundant reasons, therefore, for stating that adequate provision for allowing daylight to enter an inhabited building is essential to human growth, health, vitality, and comfort. Whoever, by building overmuch on his own land, prevents his neighbor from receiving a reasonable amount of light on his land is doing him an injury that properly comes within the scope of the police power.

Much can be done to make the best use of sunlight by the orientation of buildings and streets. Buildings facing the cardinal points are not as well lighted throughout the year as those facing the quarter-points. Our western townships with their north, south, east, and west boundaries have tended to grow up into cities having streets in these directions. Many trivial matters often control street orientation, whereas the element of sunlight receives scant attention. The matter does not become one of real importance until high buildings are constructed, and, by that time, street lines have become fixed. Contact with civil engineering students in recent years has convinced the writer that astronomy receives too little attention in the schools. Few students, on graduation, are able to trace the sun's path in the heavens at different seasons or to draw the shadow of an isolated house, not to mention the shadows of high buildings on each other, when located on a street of given latitude, width, and direction.

Air.—The necessity of pure air need not be argued. It is a fundamental principle registered by human experience. Modern studies of ventilation emphasize the physical properties of the air—temperature, humidity, and movement—and their physiological importance. These heat relations are closely linked with the problem of sunlight, already considered.

Nothing in recent experimentation, however, controverts the need of cleanliness of the air we breathe. Dust in the air tends to irritate and clog the breathing apparatus. If the dust particles are sharp, as in the case of silica, they wound the delicate membranes so that bacterial infection is likely to follow. Statistics of tuberculosis among stone-

cutters show that this disease is prevalent in direct proportion to the percentage of silica in the stone dust. Dust may injure the eyes and clog the pores of the skin. Its damage is economic as well as physiological. The extent to which disease germs are transmitted from person to person through the air is not well known. Ordinarily, spray from the mouth or nose does not carry more than a few feet, and accompanying bacteria capable of detection by present methods do not live long in the air because of the destructive effect of drying and sunlight. The behavior of the filterable viruses in air and the longevity of the spores of bacteria, moulds, and fungi, however, are only imperfectly understood. Irritating fumes from chemical processes may be not only offensive to the senses, but also cause physiological injury. Any air which by reason of dust or bacteria, irritating fumes, or offensive odors, tends instinctively to induce shallow breathing, must be regarded as injurious to health. Just as pure air tends to promote health by naturally inducing deep breathing and stimulating the bodily functions, so exposure to vitiated air tends to break down the individual's power to resist disease, especially respiratory affections, such as colds, pneumonia, and tuberculosis. Here, the element of time is important. A fleeting bad odor may be offensive, but do little or no injury, whereas some odors, long continued, may be injurious. On the other hand, there are odors to which people become accustomed and which do no damage. Individual susceptibility plays an important part in the phenomenon of odor. The extent to which foul air affects breathing during sleep appears to be not well known from experimental studies, but judging from experience, its influence is quite as important as during waking hours.

The air which enters a building, both in quality and quantity, is influenced by the neighboring buildings and by the streets. Intakes of ventilation systems are more often located with reference to indoor distribution than to exterior conditions which affect the quality of the entering air.

Many studies have been made of the number of dust particles and bacteria in city air, both in the United States and abroad. The absolute figures need not be considered, because their order of magnitude varies according to the methods used and the sizes of the dust particles included in the counts. Relatively, the tests agree in showing that

dust in the air is greatest near the street and decreases logarithmically upward; that macadamized streets and much traveled granite pavements produce more dust than streets sheet-paved; that dust is closely associated with the cleanliness of the streets and methods of cleaning; that automobile traffic produces less dust than horse traffic, but distributes it to a greater extent; that street cars raise dust one or more stories higher than horse traffic; that less dust is found over grass land than pavements; that less dust is found in residential districts than in business or industrial districts, etc.

Smoke is another important source of dust. The use of oil-burners in place of coal-burners is changing this problem. The Mexican oils are higher in sulphur than American oils, and their use increases the sulphurous fumes in the air to a measureable extent.

Where high buildings exist, the ventilation of streets is coming to be an important problem. If buildings are high relative to the street width, there is likely to be a stagnation of air over the pavement and a concentration of dust, bacteria, foul odors, and automobile smoke, injurious to the health of persons using the streets.

The density of automobile traffic in cities is already so great that traffic officers are sometimes overcome by the poisonous fumes of carbonic oxide, and pedestrians are greatly inconvenienced by the smoke. In business districts, where heavy trucks are used and traffic is heavy, these conditions are especially bad, and are at their worst when associated with high buildings with flat roofs and overhanging cornices. If the streets have a marked grade, there is a tendency for gravity currents to produce partial ventilation with dilution of the bad air; but when they are level, gentle winds do not suffice to effect the necessary ventilation of deep, cavernous streets. Strong winds, on the other hand, produce excessive currents through cavernous streets, that are very objectionable in winter.

In the interest of air purity, therefore, zoning is justified. Residential districts, where people sleep and recreate and where children grow up, need protection against the atmospheric dirt of the business and industrial districts.

Noise.—Susceptibility to noise in general and to particular noises varies greatly among individuals. It is a difficult question to discuss. It is well-known that noises hinder sleep. Physicians say that certain persons, especially those

suffering from nervous diseases, are seriously injured by noise and vibration. Every one knows that in many ways noises interfere with the comfort and tranquility of life. Quiet is especially important at night, in residential districts, and near hospitals and schools.

Noises are greatly increased by the reflection of sound waves from the hard surfaces of pavements and building walls. Limitation of the height of buildings is, therefore, a means of noise reduction. Vegetation, on the other hand, tends to dampen sound waves—another reason for providing conditions favorable for trees and grass in residential districts.

Many kinds of noises are preventable, but others appear to be inseparable from traffic, business, and manufacturing processes. In these cases, segregation appears to be the best solution.

Congestion.—Congestion, or crowding, needs to be viewed from at least three angles as far as health is concerned, that is, room crowding, land crowding, and personal contact.

Room crowding is commonly expressed as a ratio of the number of square feet of floor area, or number of cubic feet of room volume, per person. Minimum limits are sometimes placed on one or both of these ratios for sleeping rooms, barracks, schools, factories, etc., based on the hygienic need for light, air, and ventilation—matters which have already been considered.

Land crowding, expressed as so many persons per acre, introduces two aditional elements, the number of stories and the area of the building with reference to the size of the lot and the street width. One of the most important reasons for restricting the height and bulk of buildings by districts is to prevent overcrowding of corridors, elevators, streets, and sidewalks. These have to do more with questions of safety and accident than with normal health, questions not considered in this paper.

The third phase of congestion bears directly on the spread of disease. When people are brought into such close contact that opportunity exists for breaths to intermingle, as in crowded elevators and cars, or for the nasal spray of one person to pollute the air breathed by another, there is serious danger that disease germs may spread and that colds and respiratory diseases may become epidemic. It may be true, as medical bacteriologists claim, that crowd

exposure tends to build up an acquired immunity against certain diseases so that to some extent Nature protects itself, but the fact remains that, on the whole, crowding speeds up and increases the transmission of disease. It is a menace to health, morals, and safety.

No one has yet established a logical basis of street capacity, either for pedestrians or vehicular traffic, or the relation which an adequate street capacity should bear to the size of abutting buildings. Most streets in American cities were laid out to accommodate slow-moving traffic and buildings of two, four, or six stories, or thereabouts. Increase in building height has led to serious street congestion in many places. Fragmentary data exist as to the number of square feet per person in buildings used for different purposes, the permissible capacity of elevators, the space occupied by moving pedestrians under different conditions, and the street space monopolized by vehicles of different character moving at different speeds. These data should be assembled and studied with a view to establishing, if possible, some reasonable relation between building size and street area. The writer's unsatisfactory attempt to do this (too meager to warrant publication), has convinced him that the fundamental data need first consideration.

Psychological.—Health is mental as well as physical. Mental health is intangible, but none the less real. Sunlight is beneficial largely because it is cheerful. Trees and grass and flowers are healthful for the same reason. The beauty of form, color, light, and shade conduce to mental health. Eyes are rested by a change of focus and ears by a change of sound. Monotony causes mental fatigue, and carried to the yielding point, may cause insanity. Children, especially, need opportunities for proper development and adjustment of the senses, but all workers like to get away from their work at night. A most important benefit of zoning is to provide opportunities for the changes necessary to normal mental health.

Community Health.—It is easy to object to particular applications of the zoning principle. Building restrictions of necessity must be arbitrary. Boundaries of districts must be actual lines, and in establishing lines where conditions grade almost insensibly one into another, it is difficult to avoid individual injustices. It is ofen difficult to show that zoning prevents injury to the health of certain

particular individuals. There are various matters for adjustment and administration which should be provided for, as well as may be, in zoning laws. Although zoning as a principle has abundant justification under the police power, it must not be forgotten that since Magna Charta, the individual has had protection against undue restrictions of government in what is known as "due process of law."

The relation between zoning and health is a mass relation. It is the health of the community, the collective health of many people, that is at stake. Families rightly separate working quarters from sleeping quarters; cooking and eating and sleeping in the same room is regarded as insanitary. Tenement-house laws, factory regulations, building codes, and the like, safeguard the internal uses of the buildings. The zoning law does for a city what some of these laws do for the factories, schoolhouses, and dwellings.

When cities grow without plan, their constituent districts tend to change in character. Single houses give way to apartment houses; residential districts are insidiously invaded by business and manufacturing; and old buildings are converted to uses for which they were not intended and for which they are ill adapted. Converted houses are notoriously likely to be insanitary and unhealthful. In a growing city, there is a natural tendency toward concentration for economic reasons. A person who erects an apartment house in a region where only single dwellings exist, is capitalizing for his own pocketbook, light, air, and the other residential benefits at the expense of his neighbors. A single-house region once infected with an apartment house tends to accumulate other apartments, and the neighborhood tends to change from a stable, house-owning population to a shifting, renting class, a class lacking in neighborliness and civic pride and leading an impoverished family life. Thanks to sanitation and other modern improvements, apartment-house life has been made healthful for adult existence, but the compressed and repressed life of a modern city apartment is not conducive to growth or to a life that is full and rich. Segregation of apartment houses is justified as a measure for protecting community health.

Gradually it is dawning on men's minds that cities which grow to great size do so at the expense of the health and comfort of their own citizens; that rapid growth which outruns municipal ability to make or remake necessary thor-

oughfares and provide needed public utilities, leads to ugly confusion, whereas a slower, well-ordered growth is more likely to lead to civic beauty and a better civilization. The United States is entering on a period of lower population increase. As pride in growth and quantity production lessens, as it must, the elements of stability and self-control and beauty need to be strengthened.

Zoning should be regarded as a sort of collective self-control, a means by which a city controls its own life and growth for the best good of all its citizens. It is an act of police power fully justified in the interest of morals, safety, and health.

Statement by Dr. William H. Peters, Health Commissioner of Cincinnati, to City Council of Cincinnati.[1]

January 11, 1924.

The manifold advantages of a well zoned city from a health point of view are attracting the attention of sanitarians all over the country today.

Much of the zoning ordinance which we are considering in Cincinnati is based upon a desire to secure for the public conditions which make for better health, comfort and safety.

The zoning ordinance is not a cure for present ills, but it does safeguard the future against a repetition all over the city, of evils which now prevail in certain sections.

Bad housing in Cincinnati is one of the factors conspiring to keep up the army of susceptibles to tuberculosis at full strength. Our records show and it is generally accepted that overcrowding in dark, poorly ventilated rooms are predisposing causes of this disease. It is proved that sunlight in the living room materially aids in providing resistance against disease like tuberculosis. Nothing at the present time will prevent the development of new slums and tenements in areas not infected. With our high tuberculosis death rate we can not ignore the provisions of the zoning ordinance which will tend to minimize the prevalence of the "white plague" in Cincinnati. No sanitary problem is solved by caring for its victims. It is solved by eliminating the conditions creating the problem. We can labor from

[1] This and other statements contained in this Appendix as made to City Council of Cincinnati were filed with that body while the zoning ordinance of that city was pending.

now until the millennium comes to better housing conditions, but not until we have a zoning ordinance which will prevent the conditions which we are trying to overcome, can we look for any great improvement.

Fresh air and sunshine are admitted to be fundamental in health regulation. Sunlight destroys disease breeding bacteria; ordinary artificial light does not. Dark rooms and artificial light make for eye strain, and lower resistance. People who are able to live and work in well lighted apartments, workshops and offices have a physical resistance which is superior to that of people who live and work in dark rooms. Equally injurious is the lack of adequate ventilation. Were it not for the continual disinfection of the earth's surface by sunlight, the morbidity of infectious diseases would undoubtedly be greater. It is with these thoughts in mind that the zoning commission would limit the height of office buildings, factories, stores and dwellings, and likewise provide open spaces about new buildings.

While clearly essential, we can not get away from the fact that slaughter houses, fertilizer plants, and other odorous and noisome trades, do produce nuisances which lower resistance and undermine health. The complaints which filter through our office force the conclusion. The classification of industrial establishments in districts apart from residence sections gives us the relief desired.

Communicable diseases, particularly the upper respiratory diseases such as common colds, influenza and pneumonia, are acquired as the result of contact within the zone of droplet infection. The same applies to measles, scarlet fever and diphtheria. That congestion and overcrowding favor the transmission of these diseases is perfectly obvious. The restrictions of the zoning ordinance relieve congestion and crowding of public conveyances, and if the plans mature, we shall find many localities in such relation to residence neighborhoods that the employees may in many instances live within walking distance from their work. The zoning ordinance also lessens crowding by placing a limitation on the number of families per acre.

And finally zoning encourages home building by the man of average means in suitable locations where the owner and his family can enjoy the sun sweet air, a little bit of lawn and flowers without any fear of encroachments which may menace his health and comfort or interfere with

the peaceful enjoyment of his possessions. Children who are brought up in single or two-family houses where there is plenty of open space about are more likely to be healthy than those who are brought up in apartment or tenement houses. And in this respect we believe that the zoning ordinance enters the health quotient of Cincinnati.

Statement by Dr. David I. Wolfstein to City Council of Cincinnati

RELATION OF UNREGULATED CITY GROWTH TO NERVOUS DISORDERS

January 24, 1924.

It is an unquestioned fact that we find more "nervousness" in the cities than exists elsewhere.

It is also a fact that there are factors present in our modern cities which are conducive to this increase in nervousness.

These factors are *excessive noise*, continuous and uncontrolled; over-crowded and congested streets; an abnormal hustle and hurry; smoke-laden atmosphere; dust and dirt.

Except in the very largest cities of say, fifty years ago, the contrast between urban and country life was not extreme, but this contrast has today reached the point where city life has become not only very unpleasant, but has imposed a terrific strain upon the nervous system—a strain which the land-dweller escapes.

The advent of the skyscraper has deprived us of sunshine and made canyons of our main arteries of travel, and has tended to bring about a tremendous herding of people and traffic congestion. Elevators shoot us with incredible swiftness to dizzy heights above and drop us just as precipitously to the ground.

Another element has been added by the automobile. It is quite evident that this introduced new problems of complexity into our modern life which call for solution. I need not emphasize the attendant noises; they are too well known; nor do more than mention these two modern inventions; the skyscraper and the automobile, are fast making city life intolerable, dangerous and most unwholesome.

Another factor unknown to former periods is the large factory in close contiguity to residential or crowded business areas, to which must be added such new industries as

garages with their noises, bustle and fumes. Of economic disturbances and inequalities I am not speaking; it is only from the standpoint of health and particularly of "nervousness" that I desire to write these few remarks.

To return to the "simple life" of our fathers is, of course, neither possible nor desirable; we are deriving many advantages from our improvements; we must, however, recognize the attendant disadvantages and attempt to find remedy for them.

The main cause in the production of nervous disorders lies, I am sure, in what we may term an increased state of "tension" in the nervous system. It may well be said that the increase in the number and intensity of stimuli which the nervous apparatus of the modern city dweller must take in day and night has given rise to a state of immediate awareness and alertness; of super-active attention which can only act to constantly maintain and increase this "state of tension." All students of the subject agree that "nervousness" is on the increase and that this increase is only attributable to the "faster pace" and "over-stimulation" of our present-day life.

The city dweller has developed, under the stress of necessity, really a "sixth sense;" the sense of greater awareness; alertness. We can see this even in our children. Although we have provided playgrounds as safety zones, many must still use our streets for their play. Watch them at play; you will see this sixth sense constantly operating to insure freedom from peril. The adult as well, treading his path through crowded thoroughfares, dodging the unending stream of autos and other fast moving vehicles, keeping his "eyes peeled" acts more like a frightened animal than a calm and assured human being. His sense of "alertness" keeps him in a constant state of tension which is surely conducive to the production of nervous disorders.

It is a matter of daily experience that one is obliged to recommend, even to those who can not well afford it, "getting out into the suburbs," in the hope that here they may lead decent, quiet and wholesome lives; in other words, to imitate the procedure of the better situated who have long since resorted to this mode of escape from the terrors of the maelstrom of city life. Unfortunately, even there, there is no assured certainty, for the planlessness and recklessness of over-rapid, under-regulated development has not spared even the outlying districts. These suffer, though

in somewhat less degree, from the same ugly and distressing factors which has turned our modern communities into veritable breeding places for "nervousness," not to speak of many other debilitating conditions to which earlier generations were not subjected.

There is, therefore, before us a very pressing problem: How shall we hope to maintain our nervous system unimpaired despite the fact that we must continue to live the urban lives which we are practically forced to live? The answer is: to remedy, as far as possible, conditions which have resulted from the planless, unthinking, haphazard growth of our cities; to prevent further undemocratic infringement of the rights of others which grew out of the absence of lawful and scientific restraint; and to make studied provision for proper control of factors which modern invention is continually imposing as further burdens to city life.

Our representatives must study and face this problem; if not, living in any modern community will become not only intolerable, but will certainly accentuate the "nervous instability" which is fast putting the stamp of "unfitness" upon this age and generation.

Strength and stability are not the products of noise, hustle and bustle and filth. These qualities, which stand for the "strong mind in the strong body," develop best where there is quiet and sanity of life.

Speaking from the standpoint of a neurologist who so frequently sees the ill-effects to which allusion has been made, the Zoning and Districting Plan meets with my full approval. It will undo in part the evil already done and prevent a far greater degree of evil which adherence to our present foolish, selfish and unscientific system encourages and fosters. Only one word more: Why is it that the element of Beauty as an unquestioned factor of value for health and sanity has received such scant recognition in our American democracy? In the oldest democracies—Greece—this was almost the essential factor. It is fully recognized in a modern democracy—Switzerland; only here in America, there appears to have existed the idea that Beauty, Form, Design, and Aestheticism in general are luxuries; something for the rich; not for the poor. The reverse is true; a well-planned city which has due regard for property rights; for parks and breathing spaces; for art and architecture and music and play, affords to the so-called "common people" the surest safeguard against the incidence of ill health and discontent; conditions which the better situated have always recognized and endeavored to secure.

Report to City Council of Cincinnati of the Committee on Public Health and Social Service of the Cincinnati Academy of Medicine

This committee, in its consideration of the Zoning Ordinance, limits its opinion to the effects of zoning on the health of the people of this community.

This committee holds itself as incompetent to pass upon the merits of divers technical problems involved, such as heights of buildings in relation to thoroughfare width, exact boundaries of zones, etc.

The committee records its definite advocacy of a zoning system for Cincinnati, and subject to such modification as may appear practical and helpful after public hearings, urges early and favorable action on this proposed ordinance by Council.

To the minds of physicians and other persons engaged in health conservation, the conditions attending urban conduct of business, transportation, amusement, housing, etc., afford widespread health hazards that may be mitigated by a proper system of city zoning. In support of this contention, this committee submits certain data based, in part upon the experience and opinion of the committee's personnel, and in part drawn from published reports of other investigators in this field.

Congestion as a Factor in Community Health

This committee advocates the adoption of the zoning system for Cincinnati, because any proper zoning system will include provisions to avoid overcrowding of people. More and more medical experience is leading to the belief that human beings themselves are the chief sources and the disseminators of human diseases, particularly respiratory diseases, such as influenza, pneumonia, bronchitis, common colds, measles, scarlet fever, etc. Not only are the particular germs responsible for these diseases, so distributed, but physical conditions surrounding overcrowding become such as to favor widespread occurrence of these

diseases. From the hospital experience of physicians, it is accepted as a well established principle, that too few cubic feet of space per patient may lead to a variety of disease complications rarely encountered where the cubic foot allowance is adequate. In Cincinnati the congestion on street cars, in elevators, in certain types of stores, in certain types of restaurants, is to be regarded as a prime factor in disease dissemination.

These unfavorable effects of human congestion are not limited to business sections as contemplated above, but are encountered in the living quarters of unplanned cities. This committee accepts adequate housing as the very foundation of human progress. One of the ills of improper housing is the overcrowding always found. Sane, constructive plans, providing for the avoidance of congestion in our business districts and in living districts will go far in the betterment of Cincinnati's public health.

Sunlight and Health

Nature has provided effective means for the continual disinfection of the earth's surface. Sunlight has associated with it certain chemical rays capable of quick killing off those agents responsible for many diseases. Were it not for this continuous disinfecting action of the ultra violet rays, in the sunlight, we might expect an almost uncontrollable growth of bacteria molds, accompanied by unbearable stenches and other offensive results. This helpful action of sunlight is directly efficacious in ridding man of some of his diseases and in preventing the inception of an even larger number. Rickets, a disease common to children, is both prevented and cured by sunlight, providing feeding conditions are anywhere near adequate. Sunlight is probably the greatest single factor in the control of tuberculosis.

Modern urban life, particularly in the unplanned city, tends to the elimination of a proper supply of sunlight, so necessary in the conservation of the health of our people. Tall buildings, inadequate spacing, rooms without proper outside exposures, are all detrimental in this respect. This committee, strong in its advocacy of the beneficial effects of the sunlight, accepts zoning as calculated to protect the people against an unwarranted blocking off of sunlight.

Zoning and Tuberculosis

For many years Cincinnati was regarded as near the top on the list of tuberculosis occurrence and tuberculosis deaths. Only those cities, regarded as sanitaria cities for tuberculosis treatment or residents, had records worse than Cincinnati. At the present time, we are advised by the Health Commissioner, Cincinnati stands fifth, of the large American cities, in tuberculosis occurrence.

The very conditions responsible for a high tuberculosis rate are those conditions that would be prevented by zoning. Tuberculosis is a disease that may be expected to rise under conditions of poor housing, overcrowding, elimination of sunlight, and bad air conditions. The rate of tuberculosis occurrence may fairly well be predicted by examining, not the person, but the conditions under which they live and work. Among office workers, employed in tall or relatively tall buildings, disease rates are higher than obtain among the general population of corresponding ages.

Failure to control here in Cincinnati, during past years, tuberculosis producing conditions, has paved the way for economic losses to the entire city. It has become necessary to maintain expensive hospitals for the care of such efflicted individuals. Even though conditions are clearly ameliorated, tribute must be paid for at least the period of one additional generation for tuberculosis already in progress among our people.

Automobile Traffic and Zoning

Uncontrolled crowding of our business population into small areas of the city will inevitably lead to a near saturation of street space with motor vehicles. The exhausts from such engines, when moving at a fair rate of speed, contain approximately 6 per cent. of carbon monoxide gas. Such exhausts when engines are idling, under conditions of car stoppage, at street intersections, contain carbon monoxide gas in proportions as high as 15 per cent. Inasmuch as a large portion of the air of a tall building enters at low levels, there is every reason to believe that these gases may be distributed to a larger portion of persons in these buildings. This gas, even in low concentration, is definitely harmful, particularly if exposure continues over a considerable period of time. This is a new health hazard and is largely limited to a highly congested urban

life. It may readily be controlled by the avoidance of automobile congestion to that point that the carbon monoxide concentration is below harmful percentages. The same hazard obtains in less congested districts where gasoline motors are repaired and tested in large numbers, in garages and on streets. The residences above and adjacent to garages are probably frequently exposed to this hazard. It is the belief of this committee that proper zoning may obviate this hazard.

Noises, Vibration, Monotony—Common to Urban Life—in Relation to Health

The strain to which the human machine is daily subjected, under conditions of modern living and working, is said to be easily eight times as great as was true 30 or 40 years ago. While no such precise figure is accepted by this committee, it is a plausible belief that the wear and tear on the various systems of our bodies under conditions of modern urban life are conducive to the development of a great variety of neuroses, fatigue conditions, strains, particularly on eyes and ears, that in the aggregate can not fail to become liabilities in the health audit of our people. Noises lasting well into the night, intense lighting, odors from industrial processes, provide undue strain on human beings. Large numbers of persons are engaged in night occupations, necessitating daytime sleeping. It is highly desirable that certain portions of our cities be set apart wherein these strains of modern life may be relatively eliminated.

Air Conditioning and Public Health

From the fact that air is so abundant and obtained so freely it would appear that little opportunity exists for any argument for air conservation in community life. To the contrary, man-made conditions so affect the air we breathe, that it may become of tremendous importance in our lives. Although modern sanitation attaches no great significance to the percentage of carbon dioxide in the air as a health factor, and has proven that there are few grounds for a belief in specific poisons in exhaled air, such sanitary work has established more firmly than ever that frequent changes of air, proper air temperature, air motion, air free from harmful dusts are essential in the maintenance of health.

The relative humidity of air frequently encountered during winter months in many places of business and home

approaches the aridity of desert countries. Such air inevitably leads to the drying out of our mucous membranes and paves the way for divers infections.

Crowded places of amusement, street cars, elevators, school rooms, favor the vitiation of air. Heat strokes (not sun strokes) occur within buildings as a result of improper air conditions. Even in streets, particularly in neighborhoods of tall buildings, normal air currents are so affected as to bring about problems in health among exposed persons in these buildings. All such problems must be linked up with types of buildings, crowding together of buildings, heating methods necessary for certain types of buildings, congestion within buildings.

This committee maintains that these mentioned and other similar problems are amenable to practical solution and control and when controlled will yield results economically and humanely sound. In the belief that Cincinnati in future generations will be confronted with a much larger number of citizens, this commitee urges that at this time such city plans, including zoning, be instituted in order that, so far as possible, the health and other interests of these future citizens may be conserved.

Report to City Council of Cincinnati of the Public Health Federation of Cincinnati

One-third of Cincinnati's population lives in one-nineteenth of the city's area. Thirty thousand of our families live in 6,587 tenement houses— a greater percentage of tenement dwellers than in any other city of our size.

Many of our tenements have dark rooms, dark halls, inadequate open spaces, small yards, little play space for children. Practically none promote health, comfort and good standards of citizenship.

So far as existing tenement conditions are concerned, the situation is practically hopeless. Nothing that we can do will make them desirable homes. Our opportunity lies in the future.

The Public Health Federation strongly urges the enactment of a zoning ordinance for Cincinnati because it is the only method we know of that will absolutely prevent in the future the development of a slum congestion, and that will guarantee for all homes hereafter erected at least a minimum of light, ventilation and play space.

Cincinnati has an abnormally high death rate from tuberculosis. An exhaustive study of tuberculosis made here in 1916 by the U. S. Public Health Service showed that "the distribution of tuberculosis bears a direct relation to that of tenements, being twice as great among tenement dwellers as among these living in separate houses." (U. S. P. H. Bulletin No. 73.)

"Tuberculosis propagated by bad air, foul air and lack of sunlight, causes annually a loss of 200,000 citizens to the United States. This disease could be largely prevented if we lived and worked in pure air, in air relatively free from mineral and vegetable dust, and, last but not least, if we were to construct the buildings in which we live and labor to allow sunlight to enter more freely." (Statement made by Dr. S. Adolphus Knopf, Professor of Medicine, Post-Graduate Hospital, New York City. Report of New York Commission on Building Districts, 1916, page 142.)

"Sunlight in living and sleeping rooms materially aids in providing resistance against disease. The sun has a destructive effect upon disease breeding bacteria. Direct daylight has a powerful influence in destroying pathagenic bacteria. People living in well lighted apartments have a physical resistance superior to that of people who live in dark rooms. That has been proved under controlled experimental conditions in laboratory tests and is a matter of common observation among human beings."

"The portions of a city which have the small family house development show a lower death rate than prevails elsewhere in the city under equal economic conditions. Children brought up in single or two-family houses where there is plenty of land about, are more likely to be healthy than those brought up in an apartment or a tenement house."

(Statement by Dr. Haven Emerson, former Health Commissioner of New York City, one of the leading public health authorities in the United States—Reports of New York Commission on Building Districts and Restrictions, page 105-09.)

In the English garden villages where there is a limitation on the number of families to the acre and where all families live in single family homes with adequate open spaces, the death rate in 1912 varied from 4 to 6 per 1,000. In the cities of England the death rate ranged from 10 to 18 per 1,000.

Direct sunlight is now being used to cure one of the most difficult diseases that medicine has had to combat, namely, tuberculosis of the bone and the joints. Hospitals have been developed in Europe and in several places in the United States devoted entirely to heliotherapy, or sun treatment for these forms of tuberculosis. Authorities of our own Medical College are now working on plans for the more extensive use of sun treatment at the General Hospital.

Sunlight has a recognized place in the cure as well as in the prevention of rickets in children. If sunlight has such remarkable curative powers with serious diseases such as these, its vital importance in keeping people well requires no proof.

Greater congestion in the suburbs of Cincinnati is possible under our present laws than any that exists in our overcrowded basin districts. Any one may build here today the same type of tenement houses that have produced the abominable congestion that exists in New York City. There block after block is being built up with huge tenement barracks, housing as many as 1,600 people to the acre. Such congestion can be duplicated in any suburb in Cincinnati.

Sickness, delinquency, crime, dependency, bad citizenship are all fostered by crowding people together in unsanitary and unwholesome houses.

1. Zoning will do more to make the future Cincinnati a city of healthful homes than any other measure proposed for many years.
2. Zoning will prevent future congestion by limiting the number of families to the acre.
3. It will guarantee a minimum of sunlight and ventilation for all houses and places of work.
4. It will encourage the one and two-family home.
5. It will prevent the city from being over-developed with huge flat buildings such as are now blighting many of the large cities in this country.

Only second in importance to the effect of zoning on the homes in Cincinnati will be its effect on the places in which people work.

Zoning requires at least a minimum of light and ventilation for factories and for office buildings. Our working population should be protected from having to work in

dark, ill ventilated factories and offices. Statistics show that in New York the garment workers who work in congested buildings are afflicted more with tuberculosis than any other class of workers. Modern plants constructed by progressive manufacturers show that they recognize the direct relation of light and ventilation to the health and efficiency of employees.

The Zoning Ordinance proposes to limit the height of office buildings in the congested business district of Cincinnati.

Today, twenty-four American cities have limitations on the height of buildings, including practically all the larger cities: New York, Chicago, St. Louis, Boston, Baltimore, Cleveland, Buffalo, Indianapolis, Los Angeles, Milwaukee, New Orleans, Providence, Salt Lake City, Seattle, Minneapolis.

Two exhaustive studies as to the necessity for limiting the height of buildings have been published—one in New York City in 1913, and the other in Chicago in 1923. Both investigations resulted in recommendations that the height of buildings be limited in the interest of public health, public welfare and public safety.

The Chicago report made by the Real Estate Board recommends that the height of buildings should bear some relation to the width of the street. "If consideration of public welfare was the only thing to consider, it would demand the reduction in the height of buildings far below the recommended limitation." "No injustice is done to property owners from the economic point of view," says the Chicago report, because "the net revenue obtained from a building twenty stories high over a building fifteen stories high is less than one-fourth of 1 per cent. and above a twenty-story building there is a diminution on the return on the investment." In the entire business district of Chicago there are only forty buildings over seventeen stories in height.

Unreasonably high buildings cut off the light and ventilation from each other. The lower offices get practically no direct sunlight and a minimum of daylight, so that most of the office workers in the lower stories are compelled to work by artificial light. The higher the buildings are on a given street the less the sunlight received in the lower stories of these buildings. In a street built up uniformly with buildings two and one-half times the width of the

street a study made in Newark, New Jersey, showed that in mid-winter the ground floors receive absolutely no sunlight.

More than 85 per cent. of the office workers in the congested business district of New York have to work by artificial light. A study of the health of these workers made by the New York Health Department in 1916 showed more illness and a larger number of cases of tuberculosis than for the city as a whole.

What the height limitation on buildings in the downtown business district of Cincinnati should be is debatable. But that there should be some reasonable limitation in the interest of public health, public safety and public convenience is, we believe, beyond dispute.

To permit buildings of an unlimited height means constantly increasing street congestion, added difficulties in fire fighting, more baffling traffic problems, increase in street accidents, great danger to life in case of panic in high buildings. We believe that all these considerations indicate the lack of wisdom in waiting to act until the high building problem has become in Cincinnati the grave menace it is in many other large cities.

Protecting Residence Districts

Zoning further promotes the health and welfare of our citizens by protecting residence districts from being invaded and injured by objectionable businesses and industries.

Men and women are better able to withstand the strain of present-day life when they may enjoy rest and quiet in their home life. Anything that interferes with this is detrimental to health.

Business and industry inevitably disturb residence districts by producing noise, smoke, dust, odors, vibrations, increased traffic, incident to practically every business or industrial establishment.

Approximately one-fifth of the total population of a large city consists of children under five years of age. The necessity of preserving the quiet of residence districts so that these children can obtain a reasonable amount of sleep during the day time is of the greatest importance, as it is also to night workers.

Dust, smoke, noise, odors, do not directly cause disease, but they do have the effect of decreasing the vitality and breaking down physical resistance. Health is not merely the absence of disease. Health is something positive, it involves physical resistance and vitality, it is mental as well as physical.

From a Report on Zoning in the City of Chicago (Reprint Series No. 25, 1923), John Dill Robertson, M.D., Commissioner of Health (1919-1921), Charles B. Ball, C. E., Chief, Bureau of Sanitation

The Interest of Health Departments in Zoning

The methods of zoning, which have already been adopted in some American cities and are being formulated for numerous other cities, sustain such a vital relation to the health and social welfare of the people that no health administrator can afford to neglect any opportunity to observe the beneficient effects which such methods are producing or to refrain from exercising his influence to secure for his own community the speedy adoption of a complete and comprehensive districting plan.

The health advantages which result from zoning are:

"1. The gradual separation of districts in which the most notable industrial nuisances, such as smoke, odors, noise, dust, soot and vibration prevail, from the districts used for residential purposes.

2. The prevention of store intrusions which bring with them into residential districts nuisances similar to those named above, but less annoying in degree.

3. The arrangement of districts in which industries that do not produce nuisances may be located within walking distance of the homes of those employed in them, thus decreasing congestion of transportation facilities and the transmission of disease due to overcrowding in conveyances.

4. The increase of open spaces surrounding buildings, especially dwellings, so that a greater degree of sunlight and air circulations around and in buildings will be available, and the stimulating influence of green grass and trees may be afforded.

In arguing for the desirability of a zoning ordinance, Hon. G. A. Jordan, Assistant Health Commissioner, St. Louis, writes as follows:

"The observing person must be impressed, in contemplating the arrangement of the average city, with the very distinct advantage of some supervisory control which would prevent the haphazard go-as-you-please conditions that continually meet the eye. Canyons formed by skyscrapers on either side of whole city blocks, resulting in darkened streets, never, or for most brief periods, bathed by sunlight, the interior rooms of such buildings darkened and dependent upon artificial light and lacking proper ventilation; in other blocks one or two very tall buildings adjacent to buildings of two or three stories; boulevards whose beauty is destroyed by shops, factories and offensive industries; residential districts invaded by industries that impair property values; irregular arrangements of streets, congestion of living and transportation, all cry out for some supervising power that will prevent chaos and restore order, or at least prevent further chaos. Aside from the offense to the eye, which is the first impression, it is vital that regulations be established to conserve and protect community health, for no one thing is as valuable to a community as the health of those who compose it."

Extract from Report of Commission on Building Districts and Restrictions of New York City, 1916

From the point of view of public advantage the distribution of population is very important. Most of the evils of city life come from congestion of population. In precisely the measure that the city's population can be distributed will those evils be mitigated. As the number of families housed per 50 feet lot increases:

(1) The provision of light and air, so essential to health, vitality and comfort decreases.

(2) The opportunities for personal contact and thus for the spread of communicable disease increase.

(3) Noise and confusion incident to increased street traffic increases.

(4) Each family suffers more and more from the noises from neighboring families.

(5) Privacy is diminished.

(6) The children have less and less opportunity for outdoor play.

(7) The danger from fire, both to life and property, is increased.

(8) The transit lines become more and more congested during the rush hours.

It is therefore essential in the interest of the public health, safety, comfort, convenience and general welfare that a housing plan be adopted that will tend to distribute the population and secure to each section as much light, air and relief from congestion as is consistent with the housing of the entire population for a considerable period of years within the areas accessible and appropriate for housing purposes.

In order to provide the people of the city with the kinds of homes that they desire, are willing to pay for and that will bring the maximum advantage from the point of view of public health and safety, it is absolutely necessary to district the city in such a way as to encourage and conserve particular types of building in particular sections.

Many men and women would be unable to stand the strain of city life were it not possible for them to live in the more quiet, less densely populated sections. A detached house with yard and garden has kept some from breaking down under the nervous strain and has contributed to the efficiency and vitality of many others.

It is important from the standpoint of citizenship as well as from that of health, safety and comfort, that sections be set aside where a man can own his home and have a little open space about it. It makes a man take a keener interest in his neighborhood and city. It has undoubted advantage in the rearing of future citizens. The setting aside of sections for this detached dwelling type is necessary in order to retain within the city many citizens who would otherwise move to the suburbs. The retention of the citizenship of a greater proportion of this class of its business men is of great importance, not only as regards the city's taxable values, but also as regards civic interest and civic leadership.

Extracts from Statements of Dr. William A. Evans, Health Commissioner of Chicago, Published in "Studies on Building Height Limitations," by Chicago Real Estate Board

I will talk particularly to the subject of the need of sunlight in relation to colds, coughs, influenza, bronchitis and pneumonia.

First, I want to bring to your attention a series of charts showing the trend of health in Chicago during the last fifty years.

When we come to analyze this chart more closely we discover a remarkable fact:

First, that the improvement in health in the fifty years has been due to improvement in summer health; winter health is about as bad as it was fifty years ago.

Analyzing further, we find that there has been great improvement in the health as regards typhoid fever, diarrhea in children and death of babies under one year of age—types of causes largely responsible for the old time high summer mortality. On the other hand, a study of bronchitis, influenza and pneumonia shows that those diseases are far worse than they were in the 1870 decade.

This study proves two truths—First, we have controlled every disease against which we have seriously contended.

Second, in a half century in which we have almost wiped out typhoid, pneumonia and its closely related maladies have become materially worse.

In all the list of germ-caused diseases, the only group that is not coming under control—in fact, is not practically under control—is the pneumonia groups, the acute respiratory infections.

We know about what to do—in fact, we have more scientific information than we had as to typhoid fever when we decided to act in a large way against that disease.

Are we willing to approach the question of the height of buildings from that point of view?

There are several kinds of efforts that must be made to meet the problem of the acute respiratory diseases:

To enumerate:

"A—Effecorts against the disease directly—such as reporting, hospitalizing, intermediate and terminal disinfection, laboratory diagnosis, vaccines, curative sera, epidemicologic, procedures.

B—Efforts to improve vitally winter sports—vacations, better habits and customs.

C—Efforts to improve the environment—ventilation, smoke-prevention, street-cleaning, prevention of spitting, sunlight and air streets, zoning limitations of height of buildings.

The limitation of the height of buildings relates itself to problems of the acute respiratory diseases by reason of the decrease of sunlight, diffused light and air circulation on the pavements and the atmosphere between the buildings, and by reason of the interference with light and air inside them, and also by reason of the congestion on the street cars during the peak hours.

The surface of the pavement and the lower stretches of the atmosphere are being constantly polluted. Sunlight and drying are needed to sterilize it. If it is not so sterilized, we suffer infections, principally of the respiratory tract. The sun is less efficacious in the sterilizing process in the winter, because of the short effectve day (7 hours of effective disinfection as against 13 for summer) the more pollution of smoke, dust."

Extract from Statement of Dr. M. A. Bliss, of St. Louis, Published in "Zone Plan of St. Louis," by the Planning Commission

Districting or zoning presents to a specialist on nervous and mental disease many very attractive possibilities. Nervous disease is largely a product of cities; it does not flourish in the wide, sunlit, quiet country. As a matter of common observation, nervousness produced by conditions in large centers disappears if the sufferer is removed to the country. Why? Any one will reply: Fresh air, sunshine, quiet sleep, freedom from noise, dust and smoke.

By taking thought we now provide ourselves in cities with as good water and food as are to be had in the country. We attempt by ordinance to limit smoke and dust. Where we have failed to provide the condition necessary for sunshine, free air, quiet places to live and sleep are largely in the indiscriminate jumble of factory, store and residence and in attempting to crowd into a space adequate for ten people ten times as many.

If we make a clear separation of business and factory from the places where we live and where our children play; if we get away from twelve to sixteen hours from the rattle of machinery, the grinding of cars, the pounding of hoofs, the slamming of boxes on and off trucks, then nature has time and opportunity to restore the fatigued nerve cells and we issue from our homes in the morning fresh for another turn on the front line.

Within the recollection of the middle-aged the systems of rapid transportation have scattered the people of cities over large areas but no consistent plan has been adopted in our large cities to secure a separation of living from working areas. The man who establishes his home on a modest street, expecting to live in quiet and free from nuisances where his children may play in floods of sunshine and open air and in safety from the hurried traffic of business, is entitled to protection from the encroachment of livery stables, garages, factories and stores. The nervous stability of the worker and his family will certainly be enhanced by such protection. Work will be better done, and more of it. Children will grow up in better health and less inclined to nervous instability which so often finds its expression in the feverish pursuit of excitement."

PUBLIC MORALS AND GENERAL WELFARE

From Statement to City Council of Cincinnati of Hon. Charles W. Hoffman, Judge of Court of Domestic Relations, Hamilton County, Ohio

To no one institution is the proposed zoning ordinance more significant than that of the Juvenile Court, which deals almost exclusively with dependency and delinquency as manifested in children.

Comparatively recent research has disclosed that many of the causes of delinquency which we thought were congenital or hereditary are in fact the effect of unwholesome environmental conditions. The factors that distort a child's personality and finally lead him into a career of delinquency and crime may be found, it is true, in the homes of the well-to-do and in the wide open spaces, but the records of practically every court in this country dealing with childhood, reveal that the great majority of delinquent children come from the congested districts, where

families are crowded in houses with dull and forbidden exteriors, with no yards and little, if any, play spaces. Children invariably respond to the nature of their immediate physical environment. If conditions are repulsive and forbidden, the child's life will develop likewise. If conditions are wholesome, the child's chances for happiness and a useful career are tremendously increased.

We have prepared a chart indicating the wards of the city from which the delinquent children come into the Juvenile Court. It will be observed that delinquency prevails to a greater extent in those districts in which social and housing conditions are below the minimum requirements for normal child life.

PUBLIC CONVENIENCE AND SAFETY

From Report Made to the National Conference on Street and Highway Safety, Called by Secretary of Commerce, Herbert C. Hoover, and Held at Washington, D. C., December, 1924, by Committee on City Planning and Zoning Appointed for the Purpose by Secretary Hoover

Experience with the constantly growing volume of vehicular traffic makes clear that if we are to decrease the hazard to life and property or provide for the traffic needs of the future we must plan our street and highway systems and must design the individual thoroughfares with these ends in view.

The Committee therefore submits the following recommendations:

Summary of Recommendations

1. Street and highway hazards are due chiefly to vehicular traffic. These hazards can be greatly reduced by a *proper arrangement of streets and highways.* Consequently each community must necessarily study and carefully consider its own special problems with particular emphasis upon (the report enumerates the several causes of street congestion and danger, among which is):

5. *Relation Between Street Facilities and Development of Private Property—Zoning.*—Each community should, in determining the character, width and arrangement of its

streets, at the same time determine, through zoning, the character, use and bulk of abutting buildings.

Each community or group of communities in planning the main arterial highway system should take account of the effect of zoning regulations in regulating and stabilizing traffic flow.

(The report then proceeds to discuss each of the topics, the fifth being):

Relation Between Street Facilities and Development of Private Property—Zoning

It is obviously impossible to plan for adequate street facilities if there is no way of determining the demand which will be made upon those facilities. To widen streets in a congested area or even to increase the number of those streets is patently futile if the widening or increase is followed by an unforeseen increased intensive use of abutting property demanding still further increase of street facilities. It is equally impossible to plan for adequate outlets or arterial thoroughfares from a traffic-originating center if there is no way of estimating with a fair degree of accuracy the volume of traffic which may be expected to flow from and to this center.

As the volume of traffic upon a given street (excepting through or arterial highways) depends chiefly upon the use made of abutting property, there is an ascertainable relation between the character, use and bulk of abutting buildings and the needed traffic capacity of the street.

From the Report Adopted by the National Conference on Street and Highway Safety, 1924

The growing toll of street and highway accidents has become a great national problem, reaching in 1923 a total of 22,600 deaths, 678,000 serious personal injuries and $600,000,000 economic loss; an increase of 80 per cent. in the past seven years. About 85 per cent. of these accidents were incident to automobile traffic.

This is a national loss of so appalling a character as to warrant the most complete consideration and effort at drastic remedy. Such treatment is also essential in order that the full public benefit from this new system of transportation shall not be jeopardized because of accidents and congestion.

The Conference on Street and Highway Safety, including police officials, highway and motor vehicle commissioners, insurance companies, railroad and street railway companies, safety councils, chambers of commerce, labor unions, women's clubs, automobile associations, automobile manufacturers and various other national groups, was called by the Secretary of Commerce for the purpose of determining the essential facts and promoting better organization and co-ordination of activities in the reduction of accidents.

During the past six months eight representative committees have been engaged in the investigation of the facts of current practice and the most successful methods of reducing accidents. Their investigations cover (I) Statistics; (II) Traffic Control; (III) Construction and Engineering; (IV) City Planning and Zoning; (V) Insurance; (VI) Education; (VII) the Motor Vehicle; and (VIII) Public Relations. The reports of these committees, after widespread distribution and public comment, have been given detailed consideration by this Conference. They contain recommendations on which essential agreement has been reached and which, if carried out, even in part, will effect an immediate reduction in the accident toll.

* * * * *

The Conference recognizes the need for fundamental preventive measures involved in comprehensive city planning and zoning. Unless there is proper control of the development of private property, it is rarely possible to provide street and highway facilities adequate for future needs.

City Planning and Zoning

Street and highway hazards are due chiefly to vehicular traffic. These hazards can be greatly reduced by a proper arrangement of streets and highways. Consequently each community must necessarily study and carefully consider its own special problems with particular emphasis upon:

(a) The problems presented by streets and highways crossing each other at grade or crossing railroad or rapid transit lines at grade, with the two purposes of reducing the number of crossings by a better arrangement of transit lines and thoroughfares and by separating grades so far as practicable where crossings remain necessary. Elimination of grade crossings is most needed along major traffic arteries or boulevards.

(b) The problem of classifying traffic and of providing suitable and adequate facilities for each class. This involves the proper location of the various kinds of development; industrial, commercial, resdiential, through a proper planning of traffic and other public facilities provided in the various areas, supplemented by zoning regulation of private property.

(c) The location of its traffic centers and the possible development of its outlying areas with the two purposes of straightening main traffic arteries and of so spacing them that there will lie between them areas sufficient in size to support neighborhood stores, schools and recreation facilities.

(d) The possibilities offered by its topography and its present development to create by-pass highways and belt highways which will permit through traffic, especially trucks, to avoid congested districts or even any built-up portions of the city or town.

(e) The control of subdivisions to avoid in the future the types of streets which tend to congest traffic and cause accidents.

• • • • •

Relation Between Street Facilities and Development of Private Property—Zoning

Each community should, in determining the character, width and arrangement of its streets, at the same time determine, through zoning, the character, use and bulk of abutting buildings.

Each community or group of communities in planning the main arterial highway system should take account of the effect of zoning regulations in regulating and stabilizing traffic flow.

Extracts from Paper on "The Influence of Zoning on the Design of Transportation Services," Read by J. Rowland Bibbins, Engineer of Washington, D. C., to the October, 1924 Meeting at Detroit of the American Society of Civil Engineers

Meanwhile, cities are experimenting with block signals, one-way streets, etc., usually without adequate facts, surveys, or design, and in desperation, the police adopt no parking as the "last resource."

• • • • •

This is not engineering; it is a stampede. Where are the sober facts, surveys, and carefully worked out plans of experienced authority that justify such drastic measures from a technical or economic viewpoint? The cost of planning would be microscopic, relative to the saving.

• • • • •

Functional Purpose of Zoning in Transportation.—In order to distribute population rationally, reduce central congestion, relieve trunk thoroughfares of traffic "nodules" or bunched congestion, make possible adequate transportation, speed up that service, and reduce economic waste. What is the measuring stick of "density"? For on the density rests the transport capacity needed. If the limits are too easy, transport lines are overloaded, streets can not carry their burden, transit is stagnated. It is no solution to invade other streets of the city with many new lines of traffic of equal inefficiency, even if such new lines could be financed. Obviously, to obtain adequate street and transit capacity, higher and higher zoning limitations are required. The widening of a few streets or a few blocks in the central district will not suffice for, immediately, the building height limit shoots skyward several times faster. The outside zoning density standards in the end, form the major control.

• • • • •

Conclusion.—Zoning is vastly beneficial to orderly development, checks glaring misuses, and, as now administered, will ultimately exercise a restraining influence on mass density, but unless standards are raised, it can not hope to turn the tide of growing congestion promptly enough to meet obvious traffic needs of the immediate future.

From "Some Aspects of the Automobile Industry," by Alvan Macauley, President of the Packard Motor Car Company, Detroit, Mich.

The New Saturation Problem

The fundamental traffic problem is the problem of the city plan. Traffic crowding, delays, accidents, high taxes for police purposes and relief streets, high costs of deliveries of food—all these problems and many others can be traced in large measure to the planlessness of our cities.

• • • • •

Better City Planning—A Vital Need of the Automobile Industry

The possibility of a physical saturation point for automobiles in cities and the urgent need of measures to cope with traffic congestion have increased the interest of the automobile industry in city planning.

• • • • •

It is the work of the city planner, therefore, to decide the nature and the extent of the traffic that is to move about the various parts of the city and to lay out the streets in relation to this movement; and to decide the nature and extent of the traffic which is to use each individual street and to base on these forecasts its width and other structural characteristics.

An increasing number of cities have found that it is not necessary merely to forecast their development, but also to control it. By means of "Zoning" plans and regulations a city can, with flexibility and yet with conscious determination, decide in what directions it had best grow and for what purposes each section had best be used. Cities are also exercising increasing control over the plotting of suburban areas—the suburb of today becomes "the city" of tomorrow.

From Paper of Morris Knowles, Consulting Engineer, Chairman, City Planning Commission, Pittsburgh, Pa., on "City Planning as a Permanent Solution of the Traffic Problem," read at the International Town and City Planning Conference, New York City, 1925

Remedies to be Applied.—The remedies to be applied are of two distinct classes: First, those which deal with the regulation and supervision of traffic, and second, those which deal with physical construction—and the planning of improvements. The former may be considered as fitting the traffic to the streets, and the second as fitting the streets for traffic. The first is merely a palliative, it is only using the tools which we have to the best advantage. To plan is to provide the tools.

• • • • •

The permanent solution of the traffic problem involves three questions: First, the replanning of our cities to

solve the question of the congested and built-up district; second, the provision of sufficient facilities in the now undeveloped territory, so as to prevent congestion when these districts become more built up, and third, the planning and rearrangement of an entire region, so as to alleviate the conditions which now exist.

* * * * *

Zoning.—One of the most important features of city planning in its relation to traffic—although perhaps not thoroughly realized—is that of zoning, or "the creation by law of districts in which regulations, differing in different districts, prohibit injurious or unsuitable uses of structures and land." Zoning attempts to give stability to the general plan. It sanctions where the residents should live and sets forth areas to be devoted to stores and industries.

The traffic needs of a community involve: First, the distribution of traffic within that community; second, the methods of getting traffic to and from the community; and third, the method of getting traffic around the center of the congested area without passing into it. Since zoning tends to give permanency to the city's development, it plays an important part in determining the street system. The character of a district determines, to a large extent, the type of streets required to meet the particular traffic need.

The factory districts, for example, will be interested in getting materials delivered to the factory and from the factory to shipping points and transportation centers. Their need is for wide heavy-hauling streets and generally the problem is that of caring for slow-moving traffic.

In the business districts, which are the principal objective points of all inter-city traffic, the question is largely one of arterial distribution within the district, with main exists and entrances. If the principal streets are stabilized as to use and thus as to value, it will more surely fix the improvements and provision for transportation requirements.

In short, to intelligently design a system of streets and to make them relatively permanent and, therefore, as nearly fixed as possible, requires zoning, so that the planner may be certain as to the kind and character of the traffic the streets must carry.

Thus zoning enables sensible planning of thoroughfares of sufficient width and of a type to meet the requirements of different kinds of development, so that it will not be necessary to first build, then tear down and rebuild.

From an Address on "The City, Its Past and Its Future," Delivered at Birmingham University, by Dr. Raymond Unwin, of the British Ministry of Health

The real advantages of community life can not be secured by adopting the methods of the thrusting crowd or the grasping scramble, and such methods should no longer be tolerated as the basis of civic life or town development.

* * * * *

From the present method of haphazard growth, a disorderly muddle of industrial, commercial and residential areas or buildings inevitably results. As further accretions develop on the outside, many of the advantages which lead to the selection of particular sites are taken away. In the built-up area of each large town there ensues a continuous struggle of the different parts to re-sort themselves on some more rational basis; and every move is accompanied by the sacrifice of something which has gone before.

Overcrowding solves no problems; in whatever form adopted it creates new difficulties; that is our first lesson.

The second is that in essence the problem we have to handle is one of distribution and localization; the proper distribution of the parts of the town in relation to each other and to the site, and the localization as far as possible of the life of the people in each part.

In existing towns the disentanglement of the confusion of parts and buildings which has resulted from haphazard growth must take time; but this proper distribution of parts must underlie all our planning if it is to be on right lines. Better distribution and greater localization of life offer the only solution of the present traffic problems. It has become evident that there is no solution to be reached by merely multiplying facilities; each in turn is liable to increase the congestion by bringing people to the center, as much as it relieves it by taking them out, is liable, merely to increase the volume of movement. Bad distribution simply means that things are in wrong places. A large proportion of the different sections of the town, and many of the buildings which give rise to heavy transportation, being in the wrong places, much of the congestion of traffic is entirely due to the unnecessary moving to and from of goods and people which results.

The volume of traffic in large towns will be great in any case, but it can be reduced by good distribution, by decentraliziation and by localizing the life of the people in each decentralized unit. There will still be need to study carefully the many new methods of transportation now available, and using each for the kind of service for which it is best adapted, to frame the whole scheme to give adequate facilities for such movement of men and things as may prove to be necessary or desirable. So long, however, as our towns were permitted to spread out indefinitely over the surrounding territory in a dense mass of streets and buildings, industrial, commercial and residential parts indiscriminately mixed up and packed together, so long must the life in our towns be one vast disordered confusion of people rushing backwards and forwards over the whole area, impeded by the congestion which results from this cross transport of men and things.

From Memorandum on "Zoning in Built-Up Areas," by British Town Planning Institute to London County Council

1. The following memorandum has been prepared by the Council of the British Town Planning Institute in response to an invitation by the London County Council to place before it the views of the Institute upon the subject of zoning in built-up areas, with special reference to London.

* * * * *

7. The great and increasing inconvenience of traffic congestion which is so evident in all our large cities, and particularly in London, is, perhaps, the most important instance of the result of attempting to deal with urban problems in watertight compartments. The present confusion and congestion in our streets appear to us to be largely due both to the amount of unnecessary traveling that now takes place owing to the disordered mingling of all kinds of buildings without regard to the relationship between their function and location, and to the fact that the uncontrolled change of character in buildings frequently renders streets, designed to serve the traffic arising out of the original user of the frontages, completely inadequate to deal with the traffic caused by a change of user. From the economic standpoint it is obvious that the width and construction

of streets should be determined in relation to the character of the buildings in the districts through which they pass, and in our view no satisfactory solution of the traffic problem can be arrived at until the improvement of the street system in a town is undertaken in conjunction with zoning as part of a general town plan.

* * * * *

10. The effect of zoning upon land values is very largely a matter of surmise. The view that land values would suffer depreciation as a result of such restrictions being imposed is based upon the assumption that complete freedom in the matter of user is a considerable factor in the value of land. While this is no doubt true from the point of view of the land speculator operating in a town where conditions are undergoing rapid changes, it is probably not a factor of much consequence where changes in the character of property are gradual and where all the land is subject to zoning restrictions. In fact, under the latter conditions it appears to be much more probable that the added security afforded by zoning would have the effect of increasing land values. In residential areas considerable value is attached to the preservation of amenity, as every large landowner has recognized in his private restrictions. In the case of land used for commercial purposes, a certain degree of concentration and the existence of good traffic facilities are both elements of value which would be improved by zoning as part of a comprehensive planning scheme.

PUBLIC SAFETY

Statement by Edmund Dwight, Resident Manager, The Employers' Liability Assurance Corporation of London, May 18, 1916, to New York City Commission on Building Districts and Restrictions

As an owner of property in various parts of New York, I am satisfied that while in individual cases there might be some hardship, resulting from the proposed system, it should work as a whole to the enhancement and stability of real estate values, and to the great welfare of the community.

The plan of this commission provides for certain residential streets from which trade and industry will be excluded. This, in my judgment, will undoubtedly tend to reduce the

frequency of street accidents. Manufacturing operations carried on extensively in sections of the city which are also used for residential purposes and which involve an extensive use by truck, vans and express wagons, in residential streets, increases the number of accidents in the street. I believe that the same would be true if the mercantile use of the streets could be eliminated or reduced in residential sections.

From Statement of John Kenlon, Chief of Fire Department of New York City, to New York Commission on Building Districts and Restrictions, 1916, on Relation of Zoning to Fire-Fighting

Congestion of traffic and population and haphazard building make the city's fire fighting problem increasingly serious. It becomes increasingly difficult to move fire apparatus through the congested streets. Streets densely packed with crowds of people that quickly form wherever a fire occurs, interfere with prompt service after the scene of the fire is reached. If a serious fire should break out in lower Manhattan coincident with an explosion or earthquake shock that would cause a general panic and outpouring into the streets, it might be utterly impossible for the firemen to reach the fire and a terrible conflgration might result. This is the plain truth and it is fool-hardy to utterly ignore it and go on piling up buildings and further extending the danger zone. The districting plan will, as to future growth, tend to spread out business and industry, both by limiting the height of buildings and by encouraging the development of commercial and industrial areas in the other boroughs.

In the thirty years that I have been connected with the fire department, lower Manhattan has changed from a five story city to a twenty-five story city. There is great confusion there at the present time; during the daytime it is difficult to move apparatus in response to fire calls in the lower end of Manhattan Island. Increased congestion of people and traffic in this section will cause very serious delays in getting apparatus to work around the scene of fire. Any plan that will in a measure prevent the increase of congestion in the central portions of the city is a plan in the right direction.

* * * * *

If you can confine stores to broad avenues and good substantial buildings and reserve side streets for residences, there would be a great deal less danger from fire. I think you are on the right line for the health and safety of the people in establishing residential and industrial districts.

Segregating buildings according to occupancy in different sections of the city will restrict the area in which a conflagration can occur. It will be a help to the Fire Department in laying out and equipping fire houses. I think it will greatly lessen the cost of fire protection.

If we can apply to the outlying sections provisions that will prevent so great a percentage of the lot being covered by buildings, by laying out wider yards and courts, the safety of the city will be promoted. Such a plan would tend to prevent the spread of fire. Where the area of the yard is increased on both sides and the courts are larger the danger of the spread of fire is considerably less.

Extract from 1925 Fire Prevention Year Book of Baltimore, Maryland, Underwriters and National Agent

Outside of individual cases let us consider the relationship of zoning to fire department work and fire prevention generally. In every city of any considerable size is a high hazard district, where spread fires are possible and probable. In these districts, in many cities, there is a provision in the building code or other law against the erection of any frame building. Many of these cities, even outside of this area, and where frame structures are allowed, require that any such frame structure must be built a certain distance from any other building, and which varies from ten to fifty feet. This frequently stands whether the original building is of frame or of fire proof construction. Good zoning might probably allow the introduction of a certain class of business, if the structure is built in conformity with the distances set down in other city regulations for safety, but may properly refuse the introduction into the community of a higher hazard business.

* * * * *

It is probably entirely good zoning to require certain set-backs from building lines and certain side-yard spaces

in residential areas of the suburban type, not only for the usual reason of preservation of the character of a high-class zoned area, but for health and fire hazard reasons. Such areas are usually less protected by concentrations of fire apparatus than are the built-up sections of a city, fire alarm services are frequently carried overhead, instead of in conduits, and are thus subject to disturbance from the elements. Sweep fires in such areas are certainly less likely when each building is protected by free space. Especially when business houses are to be erected in an area district which requires one or two side yards and set-backs from the front building line the fire hazard is patently lessened. In high value business districts such protection would be possibly unreasonable, especially if in close contact with districts where the established procedure is to the contrary, but the requirements may not be unreasonable in newly-developed territory, especially where the commercial use is merely an adjunct to residential service, such as grocery, notion or drug stores.

Each experience teaches that the safest form of residence from a fire prevention viewpoint is the single-family house. There is usually less of trash accumulation and more care in handling inflammable material when the owner of the house and his immediate family only are concerned, than when there is a mixed occupancy.

The question of families per acre involves many considerations of hazards of life, or public safety. It is therefore entirely good zoning to prevent over-congestion, as far as possible, on a fire hazard basis and, in addition, to thoughts of health protection, etc.

Height restrictions can very well be considered vital zoning from a fire hazard viewpoint. It has been clearly demonstrated that a spread fire can involve so-called fireproof structures. * * *

* * * In sustaining a special act which limited construction to not more than 175 feet in Baltimore, Judge Worthington, in the Court of Appeals of Maryland, dwelt upon the ravages of the 1904 fire, and added: "Great impetus is given to such a fire by very tall buildings. They serve as so many large funnels, furnishing draft for the flame, thereby intensifying the heat, and outreaching the efforts of the fireman." Thus it would seem that height

restrictions are entirely good zoning within the police powers, as interpreted by this court.

The fire hazard must always be measured not only by the condition and amount of inflammable property, by the strength of fire-fighting forces of the particular community, and by the liability of the community to unusual wind and other elemental disturbances, but by the water supply of each particular area. It is a potent fact that the average main put in for a residential community may be entirely inadequate to take care of the fire department needs when a large industrial plant, or a series of such plants, which have invaded a strictly hitherto residential area, are food for flames. How many times does one read in the daily press about inadequacy of water supply after some large plant is destroyed in the outlying section of some large city. In many cases the water mains were originally laid for a scattered suburban supply, or a strictly residential drawoff, and the line is inadequate for fire service beyond a certain point. * * *

It can thus be seen that intelligent zoning is definitely tied up in relation to the fire hazard to the ability of the city to extend adequate water supply in particular areas. There is a very distinct fire hazard in the introduction of a business area, or an industrial area within a district zoned residential and provided with water supply for residential use.

Fire department statistics all over the country show that there is an increased hazard with the introduction of business. A building which is used for joint business and dwelling occupancy is more liable to fire than is one which is used for residence only. Again, a building used entirely for business purposes is a greater fire hazard than either the partial occupancy or the dwelling, in relation to the proportion of fires in regard to the number of occupancies in the entire community.

The fire department records of one large city were secured recently as an example of fire hazard and zoning needs, and some interesting deductions made. First, there was a study of fires in buildings having combined residence and business. It was found that there were 273 fires in a stated period in such occupancies. * * * During the same period there were only 1,182 fires in residences in the entire city, and the fires in combined residence and business uses were out of all proportion to those in resi-

dences only, when compared to the number of combined residences and stores, on the one hand, and the total number of residences, on the other, in the entire city.

About the same proportion of fires also existed for the period as between buildings used for apartments and stores jointly and those used for apartments only. * * *

* * * * *

There can be no doubt that zoning has a distinct relation to fire prevention. The planning for work of fire departments and water departments is simplified where intelligent zoning maps out ahead its occupation of areas, and prevents haphazard invasion of areas restricted to residence or light commercial areas, as differentiated from industrial areas, and holds its restrictive area variations to the necessities of business and industrial growth and encroachments along common sense zoning lines so that no practical difficulty or unnecessary hardship is created merely for estheticism.

* * * * *

"* * * Water engineers tell us that the distribution system, no matter how carefully designed, may in the course of time prove inadequate without some control over uses of property and an assurance that those uses will be stable. The distribution structure is almost unalterable to meet changing needs, and if inadequate must be replaced. The size of a water main necessary to supply a residential development is smaller than is required to supply a neighborhood which is interspersed with stores. As the number of business houses increases, the size of the water main must be increased, until the high value commercial district is reached, which is approximately the downtown business district, where the maximum supply must be provided. Mr. Siems says further: 'In order to design a water distribution system intelligently the character of the future development of the community and the location and widths of proposed traffic arteries must be known. Small mains have been laid into new territories on the theory that the demand will be slight, only to be replaced by larger mains when the territory became more closely built or its character changed. Where a system of city planning is followed the future consumption in a newly-developed territory may be anticipated. * * * A determination of the size of the feeder main extension to be economically installed may be made in advance.'

* * * * *

"Summing up the opinion of the water engineer, his own words are as follows: 'A revised method of determining required fire flows has been developed which should be applicable to all conditions. From investigation it seems that the required fire flow is the criterion upon which the pipe capacity of any gridiron system should be based. To insure an economical and permanent design, anticipation of the development of the territory to be supplied should be made possible through the adoption of a definite scheme of zoning.'

* * * * *

"Absolutely, the design of the water distribution system for fire protection and for domestic and manufacturing consumption is dependent on a definite plan for the use of property and on the height and bulk of buildings."

HOUSING, LIVING CONDITIONS, RECREATION, GENERAL WELFARE AND PROSPERITY.

"How Zoning Prevents Blighted Districts," by Edward M. Bassett, Member of Zoning Commission of New York City, and of Department of Commerce Advisory Committee on Zoning and City Planning

What starts blighted districts? Before the days of zoning they started almost over night. A residence block or a bright group of small stores would be invaded by a large stable or garage, or by a junk yard, milk bottling works or fume producing factory. The well-to-do owners would sell out and go elsewhere. The old houses and stores would be reoccupied by people who would let them run down. The stores would be taken for small industries and would go from bad to worse. It was almost impossible to stay the decline of a blighted district when it once got started. Some property owners lost a fortune trying to do it. The blighted district was usually started on its way by the invasion of one or more uses that were out of place in that particular locality.

Every part of the city was open to the exploiter. He could erect a building of any size, height or shape in any place and put it to any use however hurtful to the neighborhood. Sometimes it was storage of trucks in a good tenement district. Sometimes it was a six-story tenement in a locality of neat small cottages. Sometimes it was a

metal factory in a home district. Frequently a varnish or paint works or some other nuisance factory would buy an acre or two of land in the suburbs and establish itself in the heart of what ought to become an area of small homes. When the growth of the city forced home building in that direction the good homes would avoid the factory. The surrounding twenty or more acres would be left vacant for a time and then perhaps build up with cheap and squalid structures.

The zoning plan put a stop to this chaotic building. Invasions of harmful buildings and uses were prevented. Business districts are protected against industry, apartment house districts against business, and cottage districts against apartment houses.

Leaflet on "City Zoning is Sound Business," by John Ihlder, Manager, Civic Development Department, Chamber of Commerce of the United States

Advocacy of city zoning regulation has swept across the country during the past three years until today nearly one hundred cities and towns have adopted zoning ordinances or are at work upon proposed ordinances. Every week brings word of other communities which have become interested. Until the present year there was practically no opposition to zoning as zoning, but only to specific provisions in individual ordinances. This, of course, was a condition which could not continue. No proposal which undertakes to guide the action of others than its sponsors can go long unchallenged. So zoning is being challenged.

The fact that it is being challenged is cause for general congratulation in which its sincere advocates must join, for no proposition is so fool proof, so free from the possibility of error, that it can safely be left entirely in the hands of those thoroughly committed to it. For the past year and a half at least, some of these advocates have been watching with misgiving the speed and ease with which some communities have adopted ordinances, and they welcome the questioning which will bring to light defects in specific ordinances and so result in sound, constructive legislation.

Zoning has a sane, common-sense purpose—so to guide the development of a city's area that each part will be put to the most effective use and the whole community benefited by the substitution of system and order for chaos

and disorder. This it seeks to accomplish by dividing the city's area into three kinds of districts—use, height and area. Each of these kinds of districts is then classified; for example, use districts are classified as residential, commercial, industrial. There may be one or there may be many districts of each class, depending upon the city's size, topography and present development. Any one district may be as small as a single block or square—though, except in outlying residence districts where a four-corners is classified as commercial in order to provide for neighborhood stores, the smallest size is rare—or it may be quite large, though here again a limit is necessary in order that an industrial district, for instance, may be readily accessible from a workman's residential district.

The opposition to zoning so far seems to be due to two main causes: the natural opposition to any check on freedom of action, and the belief that zoning will prevent the greatest possible profit from an individual property in which the objector is interested. These are both legitimate causes for questioning a zoning ordinance, and the framers of the ordinance must take them into account. But the question whether to zone or not to zone can not be answered upon the basis of these two point only; it must be upon a wider basis.

The advocates of zoning put their case upon this wider basis. They assert that the unregulated development of our cities has resulted in a degree of confusion which causes constant loss of surprisingly large amounts both in operation and in capital account. This is, of course, most obvious in the largest cities. As one goes from them down to small cities and towns the loss becomes less apparent and to a considerable extent less real, until in villages it would be ludicrously pretentious to have an elaborate system of zoning. So, too, in private business, the careful thought which goes into distinctions between the departments of a great metropolitan department store would be ludicrous if applied to the general store of a village. Yet even the latter, small as it is, limited as are the varieties of goods in stock, simple as is its operation, benefits by a regime which values system and order. For the small town, zoning may be reduced to very simple terms. Yet, though the small town, like the mechanic who has only a dozen tools and so can remember where he left each one, may not find it very important to have a place for everything and to put every

thing in its place, system becomes important if the town grows into a city or the mechanic becomes proprietor of a large shop. And early habits of carelessness are hard to change.

The losses in operation due to lack of zoning may be divided into two groups: Those caused by effort and time wasted in overcoming non-contributing distances and crowds, and those caused by inadequate facilities.

So great is the loss caused by non-contributing distances and crowds that throughout all city history different kinds of businesses have tended to segregate themselves. But such blind and groping efforts have been only in small degree successful. New York, for example, has long had its so-called financial district, various wholesale districts, its great retail districts. Yet New York was the first American city to adopt a thorough-going zoning code. For New York's subway riders, from bank president to office boy—so great is the crowding now that even high-salaried executives have to abandon their automobiles far up town if they expect to reach the office before closing hour—must journey past miles of business buildings which mean nothing in their business lives. And having reached their subway destination they must slowly push their way through crowds of people with whom they will never have any contact, except a too close physical contact. Zoning seeks to reduce this loss by supplementing the blind efforts of the past with a carefully worked-out system that will give the maximum of convenience and accessibility to business.

At the same time zoning provides the possibility of increased facilities. The needs of heavy manufacturing, light manufacturing, retail trade, and of residence are different. To mix all these in one district is obviously wasteful of opportunity and wasteful of resources. To put dwellings along the line of a railroad from which spur tracks may readily be run is a detriment to the occupants, who suffer from noise, smoke and cinders, and it is a handicap to a prospective industrial plant which must pay for the site not only the cost of land but also of the buildings cumbering it. To put a factory in a residence district not only is likely to entail needless trucking through streets unfitted for such use but diminishes property values on all sides.

To put a noisy or fume-producing industry or an automobile repair shop next to a department store will quickly reduce the latter's trade. Moreover, any such miscellany

of uses will make more difficult and expensive an adequate provision of public services; the best sizes and shapes of blocks or squares are not the same in an industrial district, a commercial district, a residential district. The kinds of street paving required for the three differ, and one kind is far more expensive than another. The sizes of water mains, sewers, lighting conduits differ. Police and fire protection is more difficult in a miscellaneous district. With proper classification the proper building of the city not only becomes much less expensive, but facilities for each kind of district, now impracticable because of conflicting interests, become easily practicable.

This, in brief, is the argument of advocates so far as operation is concerned. But more important is the argument based upon capital losses. There are opponents who contend that the character of a city district changes every ten years and reason from this that a zoning ordinance will be antiquated soon after it is enacted. The come-back of the zoners reminds one of the Scottsman's response to the famous Dr. Johnson's sneer that in Scotland men are fed on oats which in England are given only to horses: "Yes, but see what men we have in Scotland and what horses you have in England." The zoners, too, say: "Yes, but the rapid change in the character of city districts is one of the strongest reasons for zoning. Zoning will slow up this change and so prevent the waste of many millions of dollars worth of buildings that are still perfectly good for their original use but are unfitted for the new use forced by the changed character of the district."

Any man who has kept his eyes open has seen good buildings demolished, has seen old buildings converted to uses for which they are most inefficient, simply because the district has changed. Advocates of zoning claim that most of these changes are unnecessary.

It is to be noted that the advocates do not claim zoning will prevent changes but will simply slow them up. They recognize that a city is a growing body and that changes must take place. So zoning regulations provide that on the initiative of property owners or on that of the public authorities, the boundaries of a district may be changed or that it may be transferred from residential to commercial or industrial. What the regulations do is to prevent one owner from injuring his neighbor by erecting a store or a factory or a public garage in a residence district years

before there is any prospect that other stores or factories or garages would come into that neighborhood. In this way the probable life of any building erected today will be greatly lengthened, and the builder will be justified in investing a larger amount in constructing a finer building.

The argument for zoning, then, is the common sense one that it will prove of practical benefit to the whole community. Granted this, it is still a question whether the particular ordinance proposed for a city is an application of this common sense. Are the areas allotted to industry those best fitted for industry? Are they large enough in the aggregate to provide for future development? Are the areas allotted to commerce adequate in location and size for the city's commercial needs? These are first considerations, for the city was built by and for business. Its future depends upon business. At the same time it must be recognized that business is not an end in itself, but a means to an end.

Business must, therefore, set boundaries for itself in order that it may not spoil the things it buys. If business is to ruin residence districts where men have invested the savings of a lifetime, if it is to make our schools ineffective by erecting next to them noisy, smoky foundries and shops, it is in large measure defeating its own purpose. The zoning regulations, therefore, protect residence districts from such intrusion in order that men may feel greater assurance in invesitng their savings in things that build up family and social life.

Once this argument for zoning is accepted the first of the objections disappears. There is little resentment at the traffic policeman who halts us at a busy corner, for it is obvious that the regulation of traffic benefits us all. As for those who oppose zoning because it interferes with the greatest possible profit for a given piece of land, there are two questions for them to answer: First, will their proposed development be an asset or a liability to the city? Second, will their expected profit materialize if their neighbors follow their example? Usually the argument of this group is based upon plans to utilize a plot of land for a very high building covering a large proportion of the plot, and therefore dependent for light and air upon being surrounded by lower buildings.

In any given district all owners should be assured equal opportunities. The maximum permitted any owner, therefore, should be that which all owners may utilize without

mutual detriment. This, the advocates of zoning say, is not an unreasonable restriction upon private initiative, while it is at the same time a positive benefit to the community.

Statement to City Council of Cincinnati of Bleecker Marquette, Executive Secretary, Better Housing League of Cincinnati

Bad housing has been one of the most fruitful sources of social ills—poverty, disease, immorality, juvenile delinquency, crime, bad citizenship—in our city for the past forty or fifty years. How many millions of dollars it has cost us in maintaining hospitals, orphan asylums, reformatories, penal institutions, courts, jails, no one can estimate.

A study was made here in 1913 to find out where the majority of the inmates of such public institutions came from. A chart was prepared on which lines were drawn to show the place of residence of each inmate. It showed that *70 per cent. of them came from the congested section of the city where 120,000 people are crowded into 6,500 tenements* in 1/19 of the city's area—where the houses are built so close together that there is not enough space for light and ventilation; where halls and rooms are dark and ill-ventilated; where noise, smoke, odors are worst; where children have no place to play except in the streets, subject to constant dangers from passing autos and to the moral dangers of gang life.

Congestion Forces Children Into Streets

Scientific studies show that where the congestion reaches the point such as exists in our tenement districts where there are more than 37 families to the acre, 80 per cent. of the children have to play away from home because there is not yard space sufficient for them.

Every study that has been made in any large city in the country shows that the great source of cases in juvenile courts, in municipal courts, in dependency institutions, in social agencies, is the slums. The infant death rate is higher, the tuberculosis death rate is twice as great in the congested tenement sections of Cincinnati as in the city as a whole.

Mistakes of Past Can Not Be Remedied

No amount of effort will undo the mistakes of the past. Our only hope lies in preventing future slums. Here Cincinnati's outlook is more hopeful than that of most cities. During the past seven or eight years we have been building one and two-family homes in the suburbs, and the basin population had been moving out to the suburbs at the rate of one per cent. per year. Home ownership, although still low in comparison with other cities, is on the increase. We are slowly changing from a city of tenements to a city of homes. If we can continue this development, encourage the construction of small homes with ample space for light and ventilation and their own patches of green and places for children to play, and on the other hand prevent the too rapid growth of huge flat buildings, we can rest assured that the future of Cincinnati's housing is safe.

Nothing to Prevent the Creation of Future Slums

Today there is nothing to prevent the development of worse congestion in the suburbs than any we now have in the basin. Nothing in our present laws prevents the erection of tenements and apartments housing a thousand people to the acre. Nothing prevents the building of one and two-family houses with no space between them, no rear yards, no set-back from the street. We have no way of knowing that the housing of the future may not be as bad as that of the past. Experience shows that where there is no restriction on congestion there is almost no limit to the number of people who can be housed on an acre of land. In New York City, for example, the tenement houses being built today have more families to the acre than in the worst slums on the East Side. Tenements of this kind house as many as 1,000 and even 1,500 people to the acre—three or four thousand to the block. It is possible to have congestion equally great in Cincinnati unless through some medium like zoning we limit the number of families to the acre.

Zoning Will Guarantee Adequate Open Spaces

The proposed zoning ordinance will prevent congestion because it limits the size of apartments and tenement houses and limits the percentage of the lot they may occupy. It encourages the construction of one and two-family houses,

because it sets aside sections in which they are given preference and in which apartment houses are permitted only under safeguards that prevent them from stealing the light and air of smaller houses and from housing too many families. It means the elimination of the dark room because it requires that all windows in dwellings shall open to spaces large enough to guarantee a reasonable minimum of sunshine and ventilation, and because it requires that one and two-family houses shall have side yards, rear yards and a set-back from the street of reasonable dimensions, based for the most part upon the better practice that now prevails.

United States Department of Commerce Advocates Zoning

The testimony of physicians, sanitarians, social service experts and housing authorities to the evils of congestion and the advantages of sunlight, air, play space, small homes, is limitless. Former President Wilson and the late President Harding were staunch advocates of the vital importance of protecting our homes. Secretary of Commerce Herbert Hoover has established in his department a Bureau of Housing which is consistently urging zoning as one of the most important measures in the interest of better homes that could be enacted. Mr. Hoover himself is an earnest advocate of zoning.

Congestion and bad housing is a curse of modern civilization—the great menace against which every large city is fighting, and will fight in vain unless by means of zoning it makes impossible the creation of future slums. Congestion is not the only factor in disease, vice, crime, juvenile delinquency, bad citizenship. Yet so long as congested housing exists, our efforts to eliminate these social ills are doomed to failure.

Well-Lighted Homes Promote Health

"People who are able to live in well-lighted apartments have a physical resistance which is superior to that of people who live in dark rooms. That has been proved under exact experimental conditions in laboratory tests and is matter of common observation among human beings," says Dr. Haven Emerson, former Health Commissioner of New York City, and one of the country's leading health authorities. "The portions of the city which have the small

family house development show a lower death rate than prevails elsewhere in the city, under equal economic conditions. *Children brought up in one- or two-family houses, where there is plenty of land about, are more likely to be healthy* than those brought up in an apartment or a tenement house," says the same authority.

Exposure to a vitiated atmosphere, lack of sunlight, congested housing which brings people in close contact with each other, tend to break down the individual's resistance to disease. Such conditions tend to spread tuberculosis, pneumonia and colds. In the prevention and cure of disease pure air, and especially sunlight, are of the greatest value. More and more ills are shown by medical science to be improved by sunlight treatment, especially rickets and tuberculosis of the bones and joints. Sunlight is beneficial stimulant to the nervous system. It destroys harmful bacteria. Its action upon the air is prophylactic, rendering the air more healthy.

Evils of City Life Lessened by Preventing Congestion

In precisely the measure that the city's population is housed in small homes with adequate open spaces, the evils of city life will be lessened—as congestion increases, the evils of city life increase.

As the number of families housed, for example, on a typical lot 50x125 feet increases—

1. The provision of light and air, so essential to health, vitality and comfort, grows less.
2. The opportunities for personal contact and thus for the spread of communicable diseases become greater.
3. Noise and confusion incident to street traffic increases.
4. Each family suffers more and more from the noises of neighboring families.
5. Privacy is diminished.
6. The children have less and less opportunity for outdoor play.
7. The danger from fire, both to life and property, is increased.
8. The transit lines become more and more congested during the rush hours.

For these reasons the proposed zoning ordinance has made scientific provisions for distributing the population and for securing to each section of the city as much light, air and relief from contagion as is consistent with housing of four or five times the present population within the city's present areas.

The proposed zoning ordinance has properly provided for various types of homes in appropriate sections of the city. One-family home sections are protected to retain their amenities. Sections are set aside where apartment houses are specifically encouraged. The great bulk of the present residential areas is preserved for the types of residences that are characteristic of Cincinnati—one- and two-family houses and small apartments.

One- and Two-Family Homes Encouraged

The zoning ordinance encourages the detached one- and two-family houses, the types of residence that tend to conserve and promote family life. These detached homes with their yards and gardens promote health, safety and comfort. They foster a high type of citizenship by encouraging families to take a greater interest in their neighborhood and city. They have great advantages in the proper rearing of future citizens. They help to keep many persons from breaking down under the nervous strain of modern city life and contribute to the efficiency and vigor of others.

Protecting Residence Districts From Intrusion by Business and Industry

The proposed zoning ordinance sets aside districts for business and industry and excludes them from residence neighborhoods. The violent protests that have been made during the past few years by home owners against invading businesses, show how great is the injury done to a residence district by such objectionable uses. In numerous cases these controversies have led to legal action.

How important protection is to residence districts is shown also by the fact that practicaliy every new residence subdivision is carefully restricted. Such restrictions protect the homes of the well-to-do, but they do not protect families in less fortunate circumstances.

Reasons for Excluding Business From Residence Districts

"An isolated neighborhood store may appear harmless, but is it? Increased noise is an incident of practically every business, even those businesses that are generally considered the least objectionable in this respect, such as the grocery store, the drug store, the millinery shop, etc. Business exists by attracting shoppers. The number of shoppers frequenting a business establishment, no matter what its character may be, as a rule, exceeds the number of persons who would in a day visit the same premises if used for residential purposes. Even a small shop will often serve several hundreds of customers in a day. This increased number of pedestrians diminishes the quiet of a street.

"In addition to the increased number of pedestrians there is also an increased number of vehicles on business streets, as compared with residential streets. This fact in itself, of course, adds to the noise on business streets, as all vehicular traffic is accompanied with a greater or less degree of noise.

"The loading and unloading of business vehicles always causes more or less disturbance to the peace of a residential neighborhood. Many stores have their goods consigned to them in crates, boxes, kegs or barrels which may be dumped from the delivery trucks onto the sidewalk without any fear of injuring the goods. Among the retail establishments especially offensive in this respect are the local hardware store and the dry goods store. The sawing of wood, the hammering, driving and removal of nails incident to the opening and closing of these boxes, causes, if anything, more noise than their loading and unloading.

"Noise injurious to home quiet also accompanies the conduct of certain businesses, as, for example, the rolling of balls in bowling alleys, the operation of motors and blowing of horns in garages, and the music and hilarity in theaters, ice cream parlors and dance halls. These establishments all keep open until late at night, and therefore very seriously interfere with the sleep and rest of the inhabitants in the district.

"Approximately one-fifth of the total population of a large city consists of children under five years of age. The necessity for quiet residence districts, so that the children can obtain a reasonable amount of sleep in the day time, is apparent. But in a large city it is not only young chil-

dren that need to sleep in the day time; there is also a huge army of night workers, newspapermen, telegraphers, telephone operators, motormen, policemen, firemen, janitors, bakers, etc. These, too, demand quiet residence districts so that they will be able to sleep during the day.

"The day sleep of the night worker is of vast importance, but the night sleep of the day worker is of far vaster importance. The same neighborhood businesses which disturb the rest of children and night workers during the day, also disturb the rest of the day worker at night. Local stores, it is true, generally close at six or seven o'clock in the evening, but on Saturday they usually remain open until ten or eleven o'clock. Then there are certain businesses which always close at a late hour. Drug stores, news stands, candy kitchens, cigar stores, delicatessen shops, etc., invariably remain open until at least ten o'clock; vaudeville, motion picture theaters and dance halls until eleven o'clock; billiard halls, pool rooms and bowling alleys until twelve or one o'clock.

"The intrusion of business is offensive to residential districts because it gives rise to increased dust. The more pedestrians and vehicular traffic a street has the more dust it will have and the more often will its dust be stirred up. In the first place, the wear of a sidewalk and pavement varies directly with the amount of traffic. That the flagging and pavement of a business street have to be renewed three or four times as often as that of a residential street proves this fact. In addition to pulverized asphalt and cement, there is, in the second place, also an increased amount of organic and metallic dust—manure from horses, grinding from steel and rubber tires, worn shoe leather and clothes. Certain businesses—carpet cleaning, shoddy mills, planing mills, etc.—are in their very nature dusty and should obviously be excluded from residence neighborhoods. But even though a business is in itself unaccompanied with trade dust its conduct in a residential district should be prohibited, as increased dust is an unavoidable incident to every business.

"The exclusion of business protects residence sections against offensive odors. Among the most notorious offenders against the amenities of residential districts, so far as a violation of the sense of smell is concerned, are the public garage, the stable, the fish market, the butcher shop, the poultry slaughter house. Today the smell of

gasoline escaping from misplaced garages permeates thousands of homes. The manure in stables, the decaying trade wastes in fish markets and butcher shops, and the wet feather in poultry slaughter houses, befouls the air in other thousands of homes. Odoriferous restaurants filled with fumes of frying fat and grease are hardly less annoying. The benzine emitted by dyeing and drying establishments and the turpentine by paint stores are not only offensive to the smell, but are actually so dangerous as to constitute a fire hazard. Objections like the above can be lodged against the presence of almost every business and industry situated in a residence district. That even a comparatively innocuous store exercises a potent influence over the character of a residential block is a matter of every-day experience. The adjoining residents move out, 'To let' signs go up, and in short time the whole street finds itself in transition from one kind of occupancy to another."

The foregoing considerations are presented at length in the report—"Proposed Building Zones for Newark, N. J."

If it is important that we prevent in the future congested housing conditions like those in our existing tenements; if it is important to prevent diseases such as rickets and tuberculosis; if it is important that Cincinnati's future generations of children shall be protected from the physical and moral dangers of the city streets; if it is important to society that home ownership be encouraged, then the case for the enactment of a sound, practical, reasonable zoning ordinance is unimpeachable.

From Statement by Raymond V. Ingersoll, Commissioner, Department of Parks, Brooklyn, May 25, 1916, to New York City Commission on Building Districts and Restrictions

Effect of districting.—I believe that, without doing any violence to existing conditions, this plan, if it goes into effect, will check the unnecessary growth of congestion of population in certain sections, diminish the fire hazards, decrease unnecessary street congestion and the dangers from street congestion, particularly to children who have to play in the streets; that it will be a very great aid to the city in properly locating its schools and libraries and other public buildings by its tendency to make the growth

normal and to make it possible to anticipate it: in other words, a general substitution of harmony and plan for chaos and ugliness.

* * * * *

Stores on residential streets objectionable.—I think that a reasonable degree of separation of stores from residence districts is desirable. Take, for instance, the rattling through the streets of delivery wagons. Of course, there always must be delivery service from the stores to the residential districts, but if you have stores scattered indiscriminately through the residence sections there is just that much more noise and that much more danger of accident from the traffic that has to go through those streets, and it seems to me that your Commission has shown a very great deal of discretion in trying to separate the stores from the residence districts, and yet not to put them too far away, but always have them within reach, which, of course, is important.

Statement to New York City Zoning Commission, by Clarence H. Kelsey, President, Title Guarantee & Trust Company, March 30, 1916

Need for districting.—I have no doubt that the city has a right to direct future building development in accord with a well considered plan, and believe that it ought to exercise it immediately and firmly. If it does not do so, it is failing to protect itself and property values as well. Its present policy of allowing every owner of real estate to do as he pleases with his own, is a policy of self-destruction.

I do not wish to discuss the plan in detail, and I do not think the Commission should attempt to hear a vast number of property owners' individual views as influenced by the effect of the plan on their properties and attempt to reach a conclusion by reconciling these conflicting views, for the more property owners discuss the details, the more confused the situation will become. The Commission, if it is to succeed, will ultimately have to decide for itself, on broad general principles, what is best for the city's future development and adopt it without expecting to get the approval of a majority of the individual property owners. The conclusion should be based on the general good and

made effectual by right of the power of the city government to do what is best for the city at large.

I have no doubt that a great many property owners will see their particular properties limited in usefulness and somewhat depreciated in value, but if the plan is not adopted, I believe there will be a far greater depreciation affecting a far greater number of people.

On values as a whole, I have no doubt of the favorable effect of this proposed control of the improvement and use of real estate. There has been a great rescission in values during the last five years, and it has affected not only those who have gone counter to the new regulations sought to be established, but those who have not; and those who may complain of the effect of these regulations on their particular properties and who think that they should be left free to build as high as they please and use as they please, may, if nothing is done, and they do anticipate their neighbors and make a greedy improvement, find a much greater loss confronting them in the future depreciation of their new buildings. I believe such depreciation is sure to come from a continuance of the present policy, and such owners will lose less by the adoption of the restrictions now proposed. These restrictions will tend to steady values and enable all real estate owners to make reasonable use of their property. This is certainly better for the city as a whole than to continue to allow a few out of many to make unfair use of their property and depress still further the value of the remaining property and ultimately their own as well."

From "What the Banker Thinks of Zoning," an Article by George S. Edie, Vice-President, Westchester Trust Co., Yonkers, N. Y., in The National Municipal Review, May, 1924

The banker thinks no differently of zoning than does the ordinarily thoughtful citizen. He is, however, more interested in preserving values and preventing, as far as possible, unnecessary waste and unnecessary losses.

When one sees an apartment house erected in a district of private dwellings there comes to mind immediately the thought that someone is profiting at the expense of another. One knows that the apartment house is worth more because

of its location, and also that the owners of the houses in the immediate vicinity are losing values, because of the apartment house being located in that section.

* * * * *

Again, we have seen an instance in New York City where, in a business district occupied by stores, industry in the form of manufacturing plants came in, and immediately the value of that location as store property decreased, and many of the stores went out of business. The section of Sixth Avenue in the neighborhood of 23rd Street at one time was the bright and shining example of a very prosperous business section, but upon the arrival of industry, and manufacturing establishments, we saw that district wiped out.

This came to my attention as a banker, as our bank was trustee for an estate which held some property in that neighborhood. We found that the value of that property had shrunk considerably from the time we took the estate over.

* * * * *

Zoning, in my estimation, is just orderly house building—just the orderly development and arrangement of a city. The object of zoning is to achieve regularity and orderliness in a city's growth and development. Zoning lays out areas for buildings for the various purposes and needs of a city. It exercises a strong influence upon property development and subdivision of vacant land. Zoning protects property values from irresponsible and unscrupulous speculative interests. And, finally, zoning prepares for the future and preserves and safeguards the present from unnecessary depreciation and loss; and works in all ways for the welfare, prosperity and advancement of a city.

* * * * *

An interesting fact that our experience with our zoning ordinance has developed is that in sections of the town where before there was zoning there was no building, because of the uncertainty of its future development, we find that since our zoning ordinance went into effect, that these sections have come into their own. Houses similar to those built in years gone by have recently been built. Such a section is the Ludlow section in the south end of our town.

This has taken place because that section is now stable. People know that no one can go in there and kill their values by future development and future building.

Let me speak of zoning as an investment from a civic standpoint. When our sessions were on with relation to our zoning ordinance in Yonkers we found some people clamoring for us to permit higher buildings and more families per acre than we thought wise.

After careful study we found that if the number of families per acre and the height of buildings were increased, our public utilities could not stand the pressure. It would require new sewers, new water lines, and many other additional expenditures.

As a matter of fact, in one section of the town which was formerly a private house section, apartment houses sprang up so fast that we were forced to tear up the old sewer, which would have been adequate to supply the needs of the one-family houses, and put in a large new sewer at great expense.

That is what I call inexcusable waste. Zoning a city is of great value. It permits the engineer to lay out his public work, as the future will demand, and saves money for the city.

The conservative banker seeks to invest in securities of certain value, where there is little change or chance of fluctuation. He likes something that is stable, and looks for safety and security of investment.

From the point of view of real estate investments, the banker is deeply interested in zoning. Under the laws of New York, savings banks, trust companies and trustees are permitted to loan two-thirds of the appraised value of real estate. Prior to zoning we saw in Yonkers very violent changes in real estate.

* * * * *

The depositor in the bank often needs credit; and when his statement shows real estate investments, it is very important that the statement be scrutinized very cautionsly by the banker. In days prior to zoning, where the customer showed a property in a residential district it was very important to know whether or not this district was restricted for a long or short term of years, inasmuch as this would decide very materially its real value. So many violent changes had occurred in our town that many real

estate values had been destroyed by unwise building, and the banker, of necessity, had to be very cautious.

Today, with zoning, a residence has a real value and can be used by the customer as security at its real worth or cost. Consequently, the customer, if in need of capital for his business, can borrow large sums on first mortgage because of the stability of his property. If in need of credit, the real estate can be properly listed on a statement at its true value. This enables the customer to have less invested in real estate, and more money is made available for trade, manufacture and commerce.

Leaflet "Why Zone Our Town?" by John Ihlder, Manager Civic Development Department, Chamber of Commerce of the United States

There are people who still think that America has not changed since the days before the Civil War, or the Revolution. They believe—one can not say they think, because they have given the matter no real thought—they merely believe that because we had no zoning regulations in 1850 or 1774, therefore none are needed now. They don't connect the lack of modern factories, office buildings, railways, automobiles and a hundred other recent developments with the placid life of those times. Our towns in those days did not have speed limits or traffic cops either. They did not need them then, but they do now. So they have them now.

So it is with zoning. Modern facilities for carrying on the business of life have added greatly to our efficiency, but at the same time they have made life more complicated and crowded and so have produced the traffic cop, whose main purpose is not to arrest the few selfish individuals who wilfully make nuisances or menaces of themselves, but to help by giving directions to the well-meaning majority of us who want to be considerate of the other fellow and who have intelligence enough to know that in the long run all will fare better and arrive more quickly if there is order and decency instead of disorder and jostling, bad temper and occasional smash-ups.

Zoning regulation is analogous to the traffic cop who prevents disasters and gets us all to our destinations faster by keeping things moving smoothly instead of letting them get into a snarl. It establishes three kinds of districts:

use, height and area. These it then classifies. Use, for example, is classified under industrial or manufacturing, commercial and residential.

Our towns and cities are created primarily by and for business. Consequently in planning and zoning them business is given first consideration. Those districts best suited to manufacturing, whether because of natural location or because of some artificial advantage, as the proximity of a railway, are allotted to manufacturing. Those best suited to commercial enterprise, as the business center of the community or smaller centers in outlying areas, are allotted to commerce. This does not mean that all land along a railway should be zoned for manufacturing any more than that every street with a street car line should be zoned for commerce. Any such easy-going rule would often give us far more industrial and commercial acreage than the community could use and so nullify the benefits of zoning.

But while the town is created primarily by and for business, yet the purpose of business is to make life better worth living. It provides the wealth by which we purchase the things that add to the fullness and joy of life: pleasant homes, education, recreation. Business therefore can not afford to spoil the things which it buys. That would be defeating its own purpose.

Zoning recognizes this and so safeguards our home districts, our schools, from being spoiled by the intrusion of injurious occupations. It recognizes the social and the economic value of investment in homes and it stabilizes the financial value of residence districts. It makes them better long-time investments both for the workingman who buys a cottage and the wealthy man who buys a mansion by protecting them against the blight of a misplaced factory or store. For the location of a factory or store in a residence district has much the same effect upon those who have invested their money in homes that the selfish automobile speeder has upon other users of the highways, makes them panicky, prone to believe that they have ventured upon something uncertain and unsafe.

The same is true of the distinction zoning draws between commercial and industrial districts. Each has its particular needs and each may be injuriously affected by intrusion of the other. But commerce is more likely to be injured by manufacturing than is manufacturing by commerce. So zoning bars manufacturing from commercial districts. On

the other hand dwellings may prove a very real handicap to industries by interfering with their expansion, by raising questions of public health and welfare. So recent zoning codes are barring dwellings from industrial districts.

Zoning then tends to stabilize real property values, to make them better investments. Its good effect in this way is most marked in residential districts, but it is also notable in commercial and industrial districts.

In the commercial and industrial districts it also brings order out of confusion—in those fortunate towns which zone themselves early it prevents the development of confusion. It treats a town as a great manufacturing concern treats its plant, placing each unit where it will be most efficient. In a large modern manufacturing plant the greatest care is taken to place each shop or unit so that the product in process may go from one to the next over the shortest possible route and without crossing other lines of transportation. Care is taken also to locate different units so that one will not handicap the other. The office is not placed next to the foundry, the noise and dirt of which will drown conversation and smudge all the letters and literature the firm sends out. Zoning applies the same principles to the whole town.

As an instance of zoning preventing blighted districts, the north side of Washington Square and parts of Greenwich Village are sometimes referred to. Before the zoning came, small industries and repair shops had begun to creep into and among the well built private houses which had been deserted by their former tenants. Rents were low and everything appeared to be on the down grade. Then when zoning began in 1916 many of these streets were zoned as residential. There was an immediate brightening of the locality. The large homes were altered into studios and bachelor apartments. Now rents are good, the houses are well kept up and artists complain that they are being crowded out.

No blighted districts have begun in this city since the zoning was established, but on the contrary, some that had begun have been redeemed.

A ZONING PRIMER

By the Advisory Committee on Zoning of U. S. Department of Commerce, Appointed by Secretary Hoover

Why Do We Need Zoning?

Someone has asked, "Does your city keep its gas range in the parlor and its piano in the kitchen?" That is what many an American city permits its household to do for it.

We know what to think of a household in which an undisciplined daughter makes fudge in the parlor, in which her sister leaves soiled clothes soaking in the bathtub, while father throws his muddy shoes on the stairs, and little Johnny makes beautiful mud pies on the front steps.

Yet many American cities do the same sort of thing when they allow stores to crowd in at random among private dwellings, and factories and public garages to come elbowing in among neat retail stores or well-kept apartment houses. Cities do no better when they allow office buildings so tall and bulky and so closely crowded that the lower floors not only become too dark and unsatisfactory for human use but for that very reason fail to earn a fair cash return to the individual investors.

"Live and let live" is a better motto for the modern city than the savage one of "dog eat dog."

It is this stupid, wasteful jumble which zoning will prevent and gradually correct. We must remember, however, that while zoning is a very important part of city planning, it should go hand in hand with planning streets and providing for parks and playgrounds and other essential features of a well-equipped city. Alone it is no universal panacea for all municipal ills, but as part of a larger program it pays the city and the citizens a quicker return than any other form of civic improvement.

* * * * *

Zoning Protects Property and Health

Suppose you have just bought some land in a neighborhood of homes and built a cozy little house. There are two vacant lots south of you. If your town is zoned, no one can put up a large apartment house on those lots, overshadowing your home, stealing your sunshine and spoiling the

investment of twenty years' saving. Nor is anyone at liberty to erect a noisy, malodorous public garage to keep you awake nights or to drive you to sell out for half of what you put into your home.

If a town is zoned, property values become more stable, mortgage companies are more ready to lend money, and more houses can be built.

A zoning law, if enacted in time, prevents an apartment house from becoming a giant airless hive, housing human beings like crowded bees. It provides that buildings may not be so high and so close that men and women must work in rooms never freshened by sunshine or lighted from the open sky.

Zoning Reduces the Cost of Living

By zoning, millions of waste from the scrapping of buildings in "blighted districts" may be eliminated.

A "blighted district" is a district, originally developed for residence or industry, in the future of which people have lost confidence.

The causes of such "blight" are manifold. The most familiar case is that of a residential district into which there have begun to creep various uses threatening rapid destruction of its value for residences—such new uses as sporadic stores, or factories, or junk yards. It is not that a few such inappropriate uses really spoil the district, but that people having lost confidence, start a panic like a "run on the bank." Hundreds of them hurry up to "unload" their properties at a sacrifice for any kind of use, no matter how objectionable to their neighbors—and the "blight" is on! Dwellings worth in the aggregate millions of dollars for the purposes for which they were built, and physically fit to serve those purposes for many years to come, with a moderate investment in alterations and improvements, are thus annually abandoned to purposes for which they are not fit, or are left to stand practically idle. Expensive public services of water, gas, electricity, sewers, and transportation are maintained at great waste in order to get through the "blighted" district to the more distant and newly fashionable location.

The total economic loss is enormous, and this loss and the risk of it are paid by the people, in the price of house rents or otherwise, as inevitably as they pay the price of the enormous fire losses, either directly or through insurance.

Proper zoning cuts these losses at their source, just as proper building regulations and fire protection cut fire losses at their source.

Again, miles of streets and sewers and other utilities, such as are ordinarily built when land is newly subdivided for dwellings, need never be constructed if we know that these areas will be devoted mainly to large factories. Industry will be more efficient, as well as homes more wholesome, if kept generally separate. Separation need not mean great distances for workers to travel. Concentration of uses and a fair apportioning of districts should reduce the amount of all transportation and secure economies not only directly for the worker but indirectly in the costs of production and marketing of goods.

If zoning can reduce the cost of living, why not have it?

Passages from "Elements of Land Economics," by Richard T. Ely and Edward W. Morehouse, Director of and Instructor in The Institute for Research in Land Economics and Public Utilities in The University of Wisconsin

p. 23. In our great cities, where land has its most intensive use, social control through building codes, planning and zoning laws, sanitary regulations, is growing. This tendency finds expression in what may be called the principle of social control: The more intensive the use of land, the more highly developed must be the social control. In such a complex society as ours, social control of some forms of land utilization is necessary to achieve the social ends which are set before each individual.

pp. 86ff. *Social Control of Urban Land Utilization.* The evil results of allowing a city to develop "naturally" is the best evidence of the need of social control of urban land utilization. The unregulated desire for profits from ownership of private property often leads to a short-sighted view. Owners of city lots, for instance, may seek to use their space up to the limit prescribed in the building law, only to find 15 or 20 years later that they have not allowed enough space for light and air. In the long run it does not pay to crowd buildings onto a lot when your neighbor is doing the same thing. The result is crowded districts like

those of New York City. Small parks are now being introduced into these New York districts, but they are enormously expensive and the work proceeds slowly.

Another striking illustration of the results of natural development is afforded by the direction of the growth of factory production. How often do we see fine, old residences blackened by the smoke of encroaching factories! In many rapidly growing factory towns houses that used to be the aristocratic and high-priced residences of the founders of the town are now low-priced and are surrounded by cheap dwellings or factories. No one would reasonably wish that such development had been wholly eliminated, for the sacrifice of some districts was probably inevitable if the town was to progress at all; but some of these losses in value might have been avoided if the development of the city had been controlled. In the long run it does not pay to leave development unregulated in the hands of profit-seeking individuals, for the temptation is very great to plan for large profits in early years, which tends in later years to cause a more rapid decline in values than is necessary.

The remedy for these undesirable results of natural zoning is in some form of social control of land utilization. In some German cities this social control has taken the form of development of new city areas by the municipal government itself. In the United States, reliance is placed on private initiative regulated by a city planning law accompanied by a zoning ordinance. In other words, the American policy of social control is to place limits on private utilization according to a preconceived plan of developing the whole urban area.

The zoning of a city is accomplished by pressure of public opinion operating through private and legislative channels. It has been said that the "destiny and growth of your town is largely affected by the foresight of the man who subdivides the land." The real estate dealer who plans, builds, and operates a subdivision can increase the amenities of land and stabilize values through restrictions on property if in no other way. In fact, the members of the real estate profession are in a more advantageous position to accomplish zoning by private efforts. Notwithstanding this potential, and in some cases actual, influence of the real

estate men, private owners are not bound by the professional standards of dealers. For this reason, among others, the future development of the city should not be left entirely to private individuals, but should be entrusted to a commission of city planning experts, backed by zoning ordinances and by an active, supporting public opinion expressed through the real estate operators. More and more cities are coming to realize that such social control of urban land utilization is the wise policy.

Controlled Zoning. Controlled zoning is the restriction by public authority of the different uses of land to certain sections of a city following a preconceived city plan. When a city ordains that factories shall be built only in certain districts or that apartment houses may not be built in certain residence districts, we have what may be called controlled zoning. Such zoning requires in the first place a classification of the several uses to which urban land may be put and a grading of those uses so that non-harmonious uses will be prevented from conflicting. In the second place, zoning requires a comprehensive plan of the city, designed to secure the most economical use of the urban area and a rational development which will stabilize land values as much as possible.

One of the main factors in the stabilizing of land values is the protection of the amenities of land by proper zoning. By amenities are meant beautiful scenery, a pleasant neighborhood, congenial neighbors, and all other inducements which add to the pleasure and comforts of living. Home owners are willing to pay for these amenities. In the case of farm land, scenery is an item in the productive unit. But the economic significance of such amenities in agricultural land values is of small account in comparison with their significance in comparison with urban values. These amenities can be reduced to almost nothing by improper zoning of a city, which allows, for example, the nuisances of a factory district to be present in a residence district. The encroachment of smoke, noise, and dirt is a primary cause of the rapid decline of residential land values. It is, therefore, something to be guarded against in zoning, since the chief function of zoning is to stabilize values.